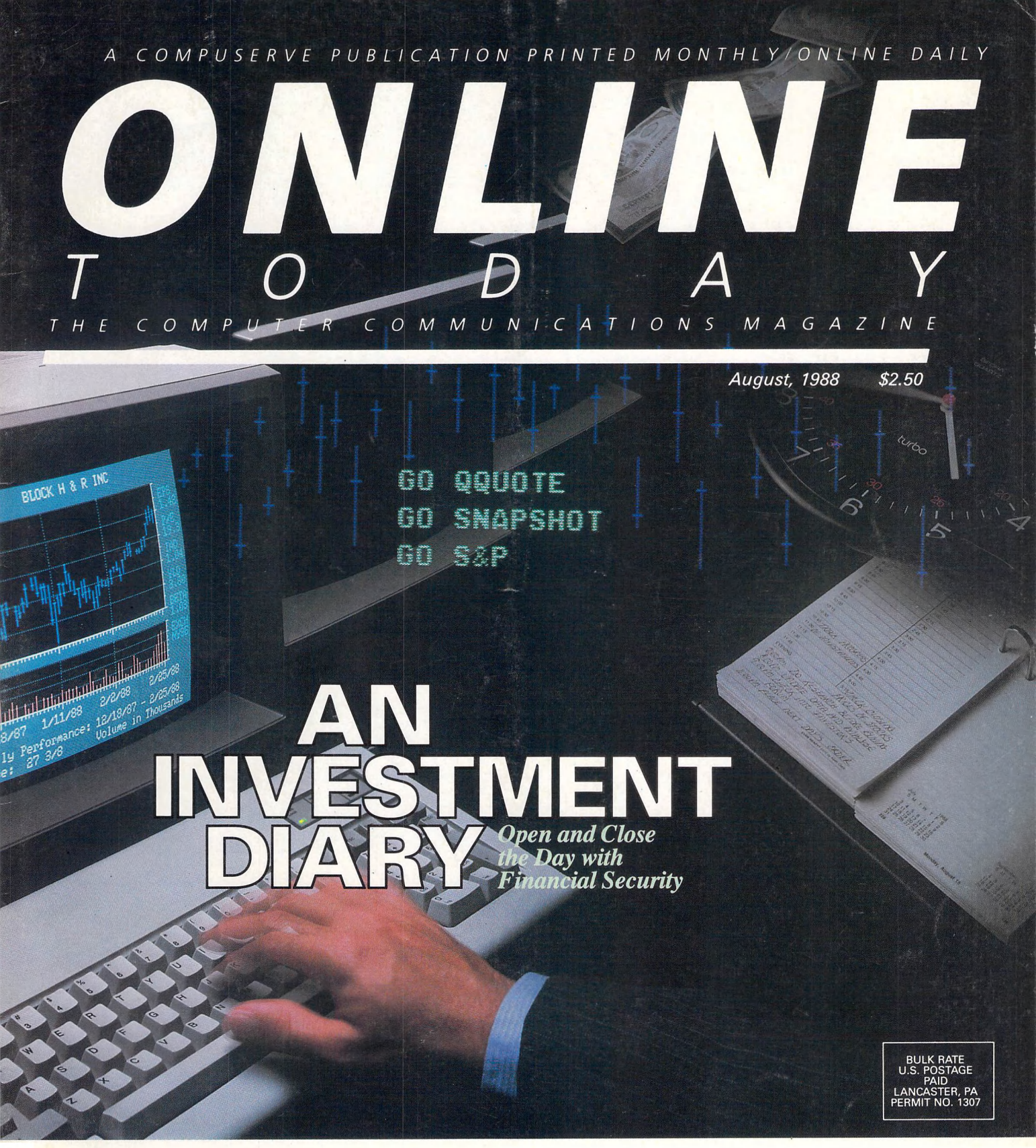
A COMPUSERVE PUBLICATION PRINTED MONTHLY/ONLINE DAILY

ONLINE TODAY

THE COMPUTER COMMUNICATIONS MAGAZINE

August, 1988 $2.50

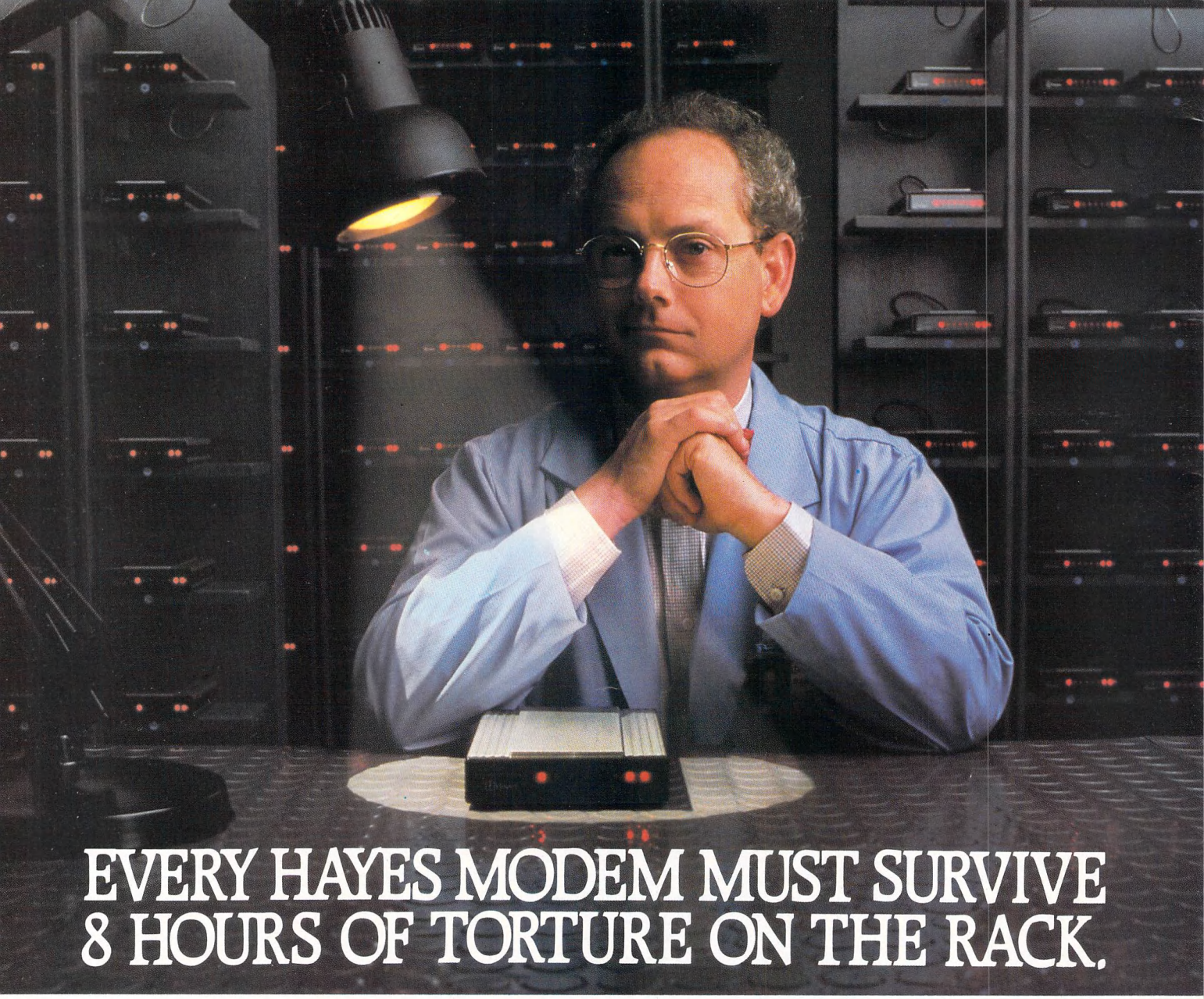


AN INVESTMENT DIARY

Open and Close the Day with Financial Security

BULK RATE
U.S. POSTAGE
PAID
LANCASTER, PA
PERMIT NO. 1307

SHOP
IN MORE THAN 90 ONLINE STORES IN THE ELECTRONIC MALL AND PLAY THE MALL'S SUMMER GAMES (**GO SG**) TO WIN VALUABLE PRIZES. FOR MORE INFORMATION, LOOK ON PAGE 26.



EVERY HAYES MODEM MUST SURVIVE 8 HOURS OF TORTURE ON THE RACK.

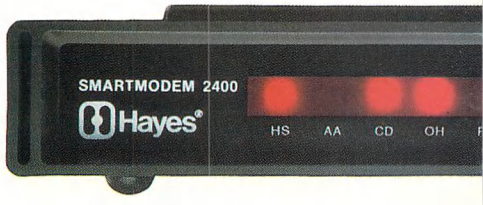
The Rack. It's 8 straight hours of burn-in testing. Yet only one of many trials every Hayes modem must go through before it's packed and shipped.

In all, there are over 20 tests and inspections for quality and reliability. Thus allowing us to offer the most comprehensive performance warranty in the business.

Today, while all too many manufacturers are content to perform only the most perfunctory tests on their products and then only on a random basis, we believe in testing all of our modems.

With no exceptions.

At Hayes we've been making dial-up data communications as common and as reliable as ordinary phone calls for over a decade. Whether PC-to-PC, PC-to-Host or PC-to-LAN, Hayes has set the standards.



And we intend to let nothing lower those standards. Especially one of our own modems.

For your nearest Hayes dealer, call **800-635-1225**. Hayes Microcomputer Products, Inc., P.O. Box 105203, Atlanta, GA 30348. Hayes®

© 1988 Hayes Microcomputer Products, Inc.

GO OLI or circle 1 on the Reader Service Form.

HAVE THE NEWS YOUR WAY.

GO MHSNAP

THE PICTURE IN AN INSTANT WITH THE McGRAW-HILL NEWS SNAPSHOT.

Staying up-to-the-minute on business news can be critical to your business. Here's an easy and inexpensive way to do it in a snap. With the McGraw-Hill News SNAPSHOT, you get the top five business headlines of the hour flashed on one screen, along with key current stock market indicators. It's the latest news, updated every hour on the half hour. When you see a story you need to know about quick—in time to do something about it for your business—select the item number to get the story.

If you need even more information the SNAPSHOT provides an immediate gateway into CompuServe's Executive News Service. Now that's service.

GO ENS

THE WHOLE STORY —AND EVEN ITS *IMPLICATIONS* FOR YOUR BUSINESS.

McGraw-Hill News brings you the most timely, thorough business news available *online.* News about specific companies and industries. Government, stock market, economic and political news.

Uniquely, it provides in-depth follow-up on vital stories with commentary by industry specialists. And since it is adapted for the Executive News Service, you won't have to learn new commands. You get to the news you need fast—it's easy to find. For a FREE Quick Service Card, call 1-800-426-0647. Only McGraw-Hill News can give you business news *your* way. With service you're not going to find anywhere else. Now that's service.

McGRAW-HILL NEWS

THE BUSINESS NEWS SERVICE THAT SERVES YOU BETTER.

© 1988 McGraw-Hill, Inc. All rights reserved.

GO OLI or circle 2 on the Reader Service Form.

CONTENTS

BUSINESS/INVESTING

12 Taking Control of Investments
Open and close the day with online investment information.

16 Analysts' Strategies
Discover how decisionmakers evaluate earnings.

COMPUTING SERVICES

19 Meeting of the Minds
Developers collaborate to create GIF standard.

20 Software Versatility
HyperCard Forum users share 'stacks' of ideas.

NEWS/REFERENCE

22 Seoul Olympics Close to Home
Database tracks athletes and wins interest.

23 Exacting Logic
The Executive News Service enhances searching.

LIFESTYLES

26 Shoppers' Summer Games
The Electronic Mall sponsors contests and prizes.

28 Son of Kesmai is Born
Sequel created to challenge advanced players.

TRAVEL

32 Country of Contrasts
Explore New Zealand's snowy volcanoes and hot springs.

33 Currency Conversions
Know your dollar's worth worldwide.

REVIEWS

34 Hardware
Okidata Microline 182, *utilitarian personal printer from Okidata*
Okidata Microline 293, *dual-head, dot-matrix printer from Okidata*

36 Software
Ventura Publisher, *desktop publisher from Xerox*
20/20, *high-functionality spreadsheet from Access Technology*
Dr. Halo III, *draw-and-paint graphics program from IMSI*
ViewPoint, *project manager from Computer Aided Management*

44 Books

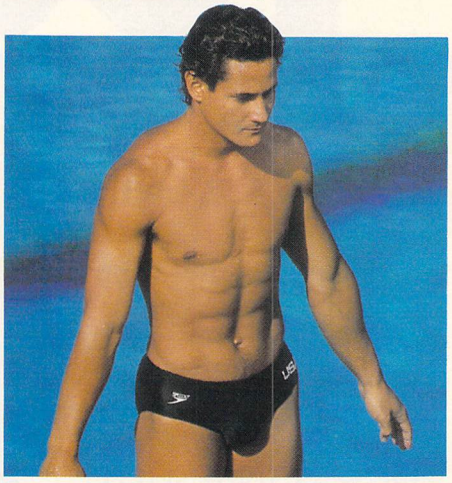
DEPARTMENTS

4 *Dear Reader*
5 *Letters*
6 *Monitor*
10 How to Get the Most Out of CompuServe
24 *Uploads: Recent Forum Files*
25 *At Your Service*
42 *Industry Watch*
48 *Update: Last-minute News*

Online Today (ISSN 0891-4672) is published monthly in the United States of America by CompuServe Incorporated, 5000 Arlington Centre Blvd., Columbus, OH 43220. Application to mail at Second-Class postage rates is pending at Columbus, Ohio, and additional mailing offices. POSTMASTER: Send address changes to *Online Today* Reader Administration, P.O. Box 20212, Columbus, OH 43220-2913.

COVER STORY

Read an Investment Diary of Online Decision Making—page 12



OLYMPICS

Olympic Hopeful Louganis Poises for a Perfect Dive—page 22

Too Hot to Print

Catch computer industry news as it happens, keep up with online events, read special reports, commentary and more product reviews. You'll find it only in *Online Today Daily Edition*, a daily-updated newspaper full of information that's too hot to print. GO OLT.

Behind the Screens	**OLT-130**
CompuServe This Week	**OLT-50**
Letters to Editor	**OLT-30**
News This Week	**OLT-20**
Online Inquiry	**OLI-1**
Online Today Columns	**OLT-110**
Online Today Guide	**OLT-351**
Product Reviews	**OLT-200**
Special Reports	**OLT-2000**
Today's Daily News	**OLT-90**

QUICK WAY—24 HOURS A DAY

NOW...ON-LINE TRADING THROUGH QUICK & REILLY

Speed and convenience, plus huge commission savings:

Now, with Quick & Reilly's *easy-to-use* QUICK WAY service, you can get quotes, place buy/sell orders, check your whole portfolio, review the latest research—*day or night*—on your own personal computer. And you get the same huge savings as non-computer clients (see table below).

USE ANY PC, ANY MODEM.

Serve—the largest computer information network—which allows you instant access to Standard & Poor's Reports, Value Line Data Base II, over 10 years of market data on some 50,000 stocks, bonds, options, mutual funds, governments. And much more.

Here are some of the benefits of trading on-line with us:

- The QUICK WAY system is easy to learn and use. You can do it in minutes.
- QUICK WAY is universally compatible with *any* PC and *any* modem.
- You can get quotes on any stock, option or market index listed in the Wall Street Journal.
- You can place orders in minutes, day or night. Reports are sent back on-line, followed by written confirmations.
- You can monitor,on a single screen, the prices of up to 18 stocks. (You can similarly monitor options.)
- You can have from one to 75 trading accounts with no start-up or monthly subscription charges.
- A double-password system guarantees the privacy of your account(s).
- QUICK WAY is available through *CompuServe*—the largest computer information network—which allows you instant access to Standard & Poor's Reports, Value Line Data Base II, over 10 years of market data on some 50,000 stocks, bonds, options, mutual funds, governments. And much more.
- Quick & Reilly on-line brokerage services are also available on *Quantum Link, Dialog* and Pronto's *Investment Edge.*

Computer traders, of course, also get all the regular customer benefits which have made Quick & Reilly one of the nation's largest and most successful discount brokers. We serve over 375,000 investors coast to coast and do more than $3 billion a year in transactions.

Importantly, when you come to Quick & Reilly you come to great financial strength. Our aggregate capital is nearly SEVEN TIMES the amount required of us by NYSE and SEC capital rules. We're here to stay. Securities held in your account are protected up to $2,500,000.

For complete information plus an on-line demonstration and application for QUICK WAY, type GO QWK. Or call us toll free.

800-221-5220

IN NEW YORK:
800-522-8712 **212-943-8686**

COMPARE

	100 sh @ 40	300 sh @ 30	1000 sh @ 20
QUICK & REILLY	$41	$ 75	$ 98
*Charles Schwab	49	96	129
Merrill Lynch	97	194	356
Prudential Bache	90	196	400
Shearson Leh. Hutton	89	190	415
Paine Webber	91	190	397
Dean Witter Reynolds	93	186	404

*Includes Schwab's 1988 rate increases. (Telephone Survey 3/88)

Quick & Reilly, Inc. 150
MEMBER NYSE • SIPC
120 Wall Street, New York, N.Y. 10005
Please send me your free brochure on QUICK WAY computer trading.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

GO QLI or circle 3 on the Reader Service Form.

DEAR READER

Following the fluctuations of the domestic and international securities markets is a daily activity for many individual investors. But it doesn't have to be an arduous one, with the availability of online financial and business news services on CompuServe.

New York attorney Harvey H. Shapiro is a good example. He recently invested in a convertible bond and then saw it plummet 23 points, causing him to lose about half his capital. But after reading the company's statements and news through the Executive News Service, he realized there had been a "panic overreaction" to the news. He held fast and his bond has now recovered all but six points. "If the Executive News Service was not immediately and constantly available—enabling me to reassess my position—I do not think I would have held on," says Shapiro.

Other investors have found valuable information quickly through such services as Quick Quote, Current Market Snapshot, Standard & Poor's Online, Disclosure II, the Institutional Brokers Estimate System (I/B/E/S) and the Investors' Forum.

With a little knowledge of these services and how to use them efficiently, you too, can "open and close the day with financial security," the theme of this month's cover story, which begins on page 12. Read about how several experienced investors use online information throughout the day as they make strategic money decisions. The article also includes ideas for novice investors (p. 17) and information about the new *Financial Services Users Guide*, an offline reference to CompuServe's financial area (p.18). If you've ever wondered how financial analysts form their opinions, see "Buy! Sell! Hold! How Analysts Decide" (p. 16).

* * *

Those planning to track the competition of the Summer Olympics in Seoul, Korea, can follow specific athletes and events through CompuServe's Olympics database. Sport-by-sport previews—from archery to the Korean martial art of Taekwondo—historical information and Olympic trivia are available.

Executive Option subscribers can set up electronic clipping folders to capture news on their favorite Olympic contenders. With enhanced search criteria, ENS now lets you go one step further in fine-tuning your keywords. For details on the Olympics and ENS enhancements, see the News/Reference section beginning on page 22.

Douglas G. Branstetter
Editor

ONLINE TODAY

***Online Today*®, August 1988**
Volume 7 Number 8

Publisher
Calvin F. Hamrick III
Editorial Director
Richard A. Baker
Editor
Douglas G. Branstetter
Art Director
Thom Misiak
Managing Editor
Mary Mitchell
Associate Editor
Kassie Rose
Assistant Editor
Denise M. Erwin
Contributing Editors
Charles E. Bowen, Cathryn Conroy, John Edwards, Carole Houze Gerber, Ernest E. Mau, Holly G. Miller
Copy Editor
Kacy Cook
Production Coordinator
Barbara Cagley
Photocomposition Coordinator
Susan Toombs
Editorial Assistant
Robert Loomis

ADVERTISING SALES
Associate Publisher
Peter A. Scott, 5000 Arlington Centre Blvd., Columbus, OH 43220; 614/457-8600
Northeast Hajar Associates Inc., P.O. Box 345, Norwood, MA 02062; 617/769-8950; Paul Hajar, Michelle Dube
Mid Atlantic Nelson and Ross Associates Inc., 55 Scenic Dr., Hastings-on-Hudson, NY 10706; 914/478-0491; Bonnie Nelson
Southeast Fox Associates Inc., Suite 275, 6100 Lake Forrest Dr., Atlanta, GA 30328; 404/252-0968; Rick Gower, Jim Manry
Midwest Kingwill Inc., 4433 W. Touhy Ave., Chicago, IL 60646; 312/675-5755; Dave Kingwill, Baird Kingwill
Northwest Fox Associates Inc., 870 Market St., San Francisco, CA 94102; 415/989-5804; Stephen E. Schwanz
West The Faust Co., 24050 Madison St., Suite 101, Torrance, CA 90505; 213/373-9604; Richard Faust, Doug Faust, Robyn Faust

MPA BPA SELECTED MARKET AUDIT DIVISION

President and Chief Executive Officer, Charles W. McCall; **Executive Vice President, Information Services**, Maurice A. Cox; **Executive Vice President, Software Services**, Robert J. Massey; **Executive Vice President, Support Services and Chief Technical Officer**, Alexander B. Trevor; **Executive Vice President, Business Services**, G. Clark Woodford; **Senior Vice President, Business Support and Development**, Barry F. Berkov; **Vice President, Market Development and Services**, John E. Meier; **Vice President, Human Resources**, Judith S. Reinhard; **Vice President, Finance**, Jeffrey T. Weisner.

Copyright©1988 by CompuServe Incorporated an H&R Block Company. All rights reserved. Contents may not be reproduced in whole or in part without written permission of publisher. *Online Today* (ISSN 0891-4672) is a registered trademark of CompuServe Incorporated. Printed in USA by R.R. Donnelley & Sons Co., Chicago.

Subscriptions: United States, AFO—$30 one year; Canada and elsewhere $40 one year. Single copies $2.50 in US, AFO and Canada. Telephone: 614/457-8600. *Online Today* assumes no responsibility for return or safety of unsolicited matter. Direct editorial correspondence to: Editor, *Online Today*, P.O. Box 20212, Columbus, OH 43220. Advertising Reader Service: Reader Service Management Dept., P.O. Box 376, Dalton, MA 01227-0376.

LETTERS

Articles for Beginners

I would like to compliment the editorial staff on the great articles for beginners in the May issue. I especially enjoyed the articles by David Peyton and Charles Bowen.

As a beginner, I would like to see more articles covering the various areas of CompuServe. One subject in particular I'd like to see covered is an explanation of file arcing and de-arcing and compression of files for transmission.

I am enjoying my subscription to CompuServe and *Online Today*.

John Olynyk
Port Coquitlam, British Columbia

Laptop Computers

In the same issue that pictured a couple using what appears to be a Toshiba 1000 laptop computer (June, p. 19), there is also a review of the Tandy/Radio Shack 102 (p. 43). The reviewer said he liked the Model 102 and "would recommend it to anyone who travels."

I have had one for some time, and I like mine, too. If it existed all by itself and there were no other computers to link up to, it would be great. Five years ago, one could have recommended it with a clear conscience. Today, it is not even in the same league as a bottom-of-the-line Toshiba, which is just as easy to toss in one's briefcase.

I am disappointed that you reviewed a product that is not compatible with DOS—or anything else—and failed to point that out. If a reader does not already know this, he or she may be mislead.

Wilton Sturges
Tallahassee, Fla.

Archiving Articles

Like Don Hinkle (June Letters, p. 5), I find useful information in magazine articles that I want to save. I have discovered a simple way to archive articles for future reference.

If you don't want to multilate a magazine, make a Xerox copy of the article you want to keep. Then, number the copy sequentially (1,2,3) and store it numerically in a file folder or three-ring binder. Next, using a reference file of 3x5 cards, put the sequential number of the article on a card and include the article's subject and/or category. You can then file the card alphabetically by category. The advantage is that it is easier to maintain a 3x5 card file than to alphabetize and categorize a large collection of magazine articles. Finally, you could automate your card file by using one of the household inventory software packages.

If you don't want to make copies of articles, you can still use your card file to access information in magazines that you keep for permanent reference. Write the subject of the article, the magazine title, date and page number on the card and file it. With this system, you can quickly find any article.

Bob Wintermeyer
Dayton, Ohio

As I read *Online Today*, I keep an adhesive note pad, turned upside down, nearby. When I see an article or update I may want to refer to later, I write the title or a short note on the pad (adhesive end). I then stick it to the page so the note is visible from the top of the magazine. To find an article later, I only need to look at the top of a stack of *Online Today* magazines.

An advantage to this system is that it allows me to quickly locate information not listed in the table of contents. For example, if I need to remember information in part of a larger article, I just mark that page.

It's also possible to color-code information. Since I use several types of services on CompuServe, I use colored adhesive notes in marking the articles. For example, I mark business information with blue, travel articles with yellow, lifestyle articles with green and news/reference articles with pink.

Raymond W. Levesque
Sierra Vista, Ariz.

Send a Letter

OLT-30 **Letters to the Editor** *main menu. Lists all departments.*

OLT-31 **Send a letter instructions.** *Complete instructions on how to send a letter to the editor via the electronic service.*

OLT-32 **Read letters** *from other OLT readers.*

OLT-33 **Send a letter** *to the editor. You will receive prompts for each step in the process. Important Note: We cannot answer questions regarding the CompuServe Information Service through this service. If you have questions or problems, please use the Feedback service (GO FEEDBACK).*

FREE Listing

Business associates and friends can find you fast when you list your electronic mail addresses for FREE in the National E-Mail Registry—the national online directory.

List your FAX and telex numbers, too. No cost to call *or* register!

Electronic Mail Directory

Log on—toll-free—via modem. Have your E-Mail address(es) handy. Registration takes only a few minutes. It's free...so call today!

800-622-0505
via modem

(300, 1200, or 2400 baud)
After you connect, touch RETURN 3 times.

NATIONAL E-Mail REGISTRY

GO OLI or circle 4 on the Reader Service Form.

English Lessons Online

Ken Love, a free-lance business photographer, has found a new avocation—teaching English online to Japanese businessmen. Logging onto NiftyServe (the Japanese version of CompuServe) when he is in Tokyo on business trips, Love has begun informally teaching English on the two English-speaking CB channels on NiftyServe.

It all began when Love logged on to tell Japanese subscribers about IntelNet, an international networking section he initiated in the Public Relations and Marketing Forum (GO PRSIG). Before long, he was conjugating verbs.

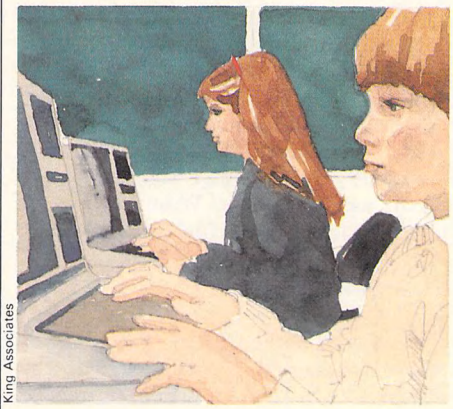
"When the Japanese found out I was a Ken and not a Kenji and that I was a native English speaker and not a Sansei or Neisai [a third- or second-generation Japanese-American], they flooded me with questions about my Eigo [English] as I did them about Nihongo [Japanese]."

Love is learning Japanese, but he is by no means fluent in it. He says the Japanese NiftyServe subscribers usually type something in English and want to know how to say it properly. He retypes what they have said, using correct English grammar and offering explanations about contractions. Sometimes, however, Love receives a Japanese request of how to say something in English. Because he uses a Japanese friend's computer for the lessons, he can turn to Larry Mizuno or Takahiko Fukawa for translating assistance.

"I have no background as an English instructor and have taught only photography," he says. It seems that the strongest desire of the Japanese is to learn everyday business talk."

And in his quest to learn more Japanese, Love checks into the NiftyServe CB channels in Kanji. "I look at the text to see what characters I recognize."

The lessons, however informal they may be, are arranged by his friend Mizuno. Approximately 20 Japanese participate. Mizuno speculates that they want to learn English because of the need for international communications and translation in business. In addition, the ability to speak a foreign language carries an image of being well-educated and wealthy in Japan. "The dedicated user, in the United States and in Japan, is looked upon with much respect. The desire and the ability to 'talk' without much regard for language differences is exciting to them and to me," says Love.



King Associates

Connected Education

Gail Thomas, a resident of Long Beach, Calif., visited New York City for the first time in May. She was attending her graduation from New York's New School for Social Research and wanted to pick up her diploma in person. That's right. Thomas "attended" a New York City college without stepping foot in the Big Apple.

Her feat was accomplished with her computer, modem and Connected Education, an organization affiliated with the New School that offers a number of graduate level programs and courses online. This fall, several new degree and certificate programs will be offered, including Technology and Society (which is part of the Master of Arts in Media studies option), a certificate in electronic publishing and a series of business courses.

Until now, Connected Education students have been able to earn a Master's degree by working exclusively online, but only by substituting online courses for some of the regular requirements. Beginning this fall, the Technology and Society program will be offered only online. No in-person classes will qualify.

"This new degree option reflects the New School's recognition of the strength and growing interest in quality online graduate education," says Paul Levinson, president of Connected Education.

The coursework will include a mixture of philosophy, survey and skills courses from ethics in the technological world to desktop publishing. "The wholly online degree will allow us to focus on building our base of enrolled students from around the country and the world," Levinson says.

The certificate program in electronic publishing consists of a series of five courses selected from workshops and classes on desktop publishing, online journalism, computer networks and professional writing, introduction to software documentation, cybernetics, poetry and more.

Eventually, Connected Education plans to offer a Master's of Business Administration degree online. To this end, a number of new business courses will debut this fall. "If they do well, we will plan a fuller program of courses," says Levinson.

"This expansion is based on our often-repeated finding that online education represents a wonderful opportunity for people whose professional and personal lives would otherwise not allow for serious education."

For information on specific courses, fees and admission requirements, contact Levinson via EasyPlex at 72517,3107 or Connected Education Inc., 92 Van Cortlandt Park South #6F, Bronx, NY 10463; 212/549-6409.

—Cathryn Conroy

Sizzling Laptops

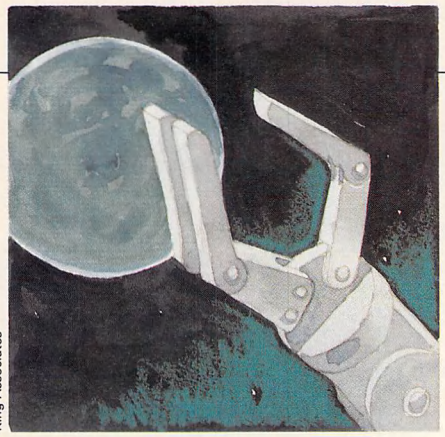
Improved displays and better, longer-lived batteries will push annual laptop computer sales to $2 billion by 1992, claims a study released by Venture Development Group, a Natick, Mass., market research company.

Backlit liquid crystal display screens have made laptops much more appealing to users who find conventional LCD displays difficult to read, according to the study.

But Venture also reports that the entire LCD family is destined for the trash bin, to be replaced by new technologies that will soon move from prototype to production. Research into electroluminescent technology, for example, will result in displays that are equal in contrast and clarity to conventional CRTs at the same price as an LCD, claims the firm.

Venture also predicts that the average laptop battery life will increase to six hours, a substantial improvement over the present two-hour average. The extra life will be a product of more efficient screens, microprocessors and disk drives, says the company. For additional details, contact Venture at 617/653-9000.

—John Edwards



King Associates

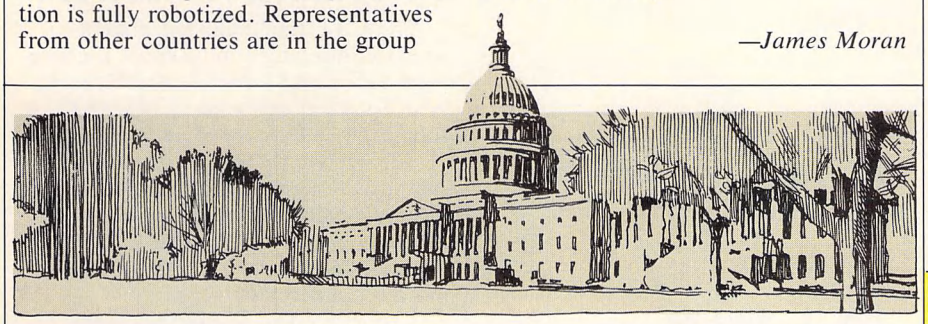
Robots in Space

NASA has formed a study group to assure that the planned US space station is fully robotized. Representatives from other countries are in the group so technology from Europe and Japan can be implemented in a way compatible with the space station's design. The Canadian contribution to the station, which features extensive automation and robotics, has already been announced.

With its limited budget, NASA wants to be certain that the station enjoys an extended operating life. The Space Station Program Office wants the robotics group to ensure that the station can be retrofitted with new robotic devices as they become available.

On CompuServe, space matters are discussed in the Space Forum (GO SPACEFORUM).

—James Moran



CongressStack Database Stacks Up

If you're trying to track the action on Capitol Hill, a lack of information is not a problem. However, getting information in a usable form can be.

CongressStack, a database for the Apple Macintosh based on HyperCard programming software, is every lobbyist's dream come true. And, priced at $159.95, the program may be of interest to the average citizen whose political involvement is limited to voting and occasional letters to a senator or representative.

CongressStack is essentially a grand address book of who's who on Capitol Hill—with a lot of extras thrown in. In addition to the addresses and telephone numbers of all 540 members of Congress and more than 11,000 Capitol Hill staffers, the program features lawmakers' biographies, district maps and ZIP codes, pictures of each member, and information on the 300 congressional committees.

Developed as the first major program by Highlighted Data Inc., CongressStack uses HyperCard to organize thousands of pieces of information. Dave Barker, president of the Falls Church, Va., firm who along with Vice President Anne-Marie Barker conceived the idea for CongressStack, says there are 17,000 "cards" of information in the program that can be organized any way the user desires.

For instance, if you want to know about the lawmakers from Idaho but don't know their names, you can select Idaho from the program's map of the United States. From there, you can select the various districts until you have a photograph of each of Idaho's senators and representatives.

If you're interested in Sen. James A. McClure, for example, you can get a list of the committees he is on, the list of his staff and information on his district.

Icons of Rolodex cards, maps and homes guide you in the search. Mailing lists, which once took weeks to assemble, can be generated in hours.

Barker admits that none of the information is new or particularly exotic, but it may be the first time all of the information has been assembled in one place.

A free demonstration file of CongressStack is available in the Apple Hyper Forum (GO APPHYPER) in Library 1 under the filename CONGRE.BIN.

For information, contact Barker at CompuServe User ID number 71250,1731 or at Highlighted Data Inc., 6628 Midhill Pl., Falls Church, VA 22043; 703/533-1939.

—Cathryn Conroy

Home Sweet Office

The personal computer is the most popular productivity tool among people who work from home, according to a survey by Link Resources, a New York City-based market research firm.

Approximately 70 percent of the survey's respondents said owning a personal computer enables them to work from home. Home workers also spend more for their systems than typical consumers, notes Link. Home office computer systems cost an average $2,100 while the typical home system costs only $1,200.

Link estimates that 23.3 million Americans work at home either part- or full-time. The figure represents an average growth rate of 6.9 percent since 1985.

For further information, call Link at 212/627-1500.

On CompuServe, home workers meet in the Working From Home Forum (GO WORK).

—John Edwards

Get Computer Industry News

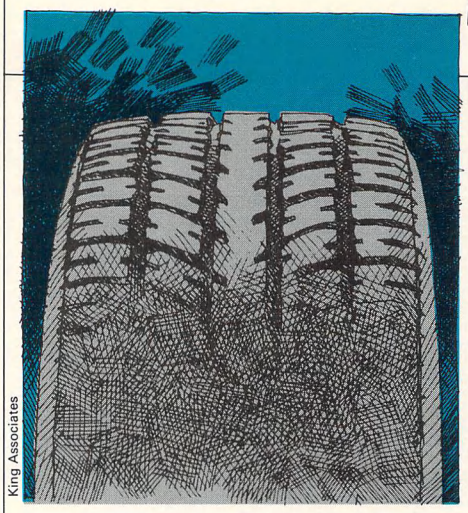
Online Today Daily Edition's Monitor section keeps you abreast of the latest computer and information industry news. Stories are added several times each day and the hot items are highlighted on our front page, OLT-1. A week's worth of recent news is always available for review (OLT-20). To read today's news, type GO OLT-90 at any CompuServe Information Service prompt.

***MONITOR DAILY NEWS**	**OLT-160**
About Monitor	**OLT-359**
Behind the Screens	**OLT-130**
Calendar of Events	**OLT-1000**
Headlines	**OLT-1**
Recent News	**OLT-20**
Reporting News to Us	**OLT-352**
Special Reports	**OLT-2000**
Today's News	**OLT-90**

PSSST!

Get behind the scenes with Monitor's "Behind the Screens" section on *Online Today Daily Edition*. Find out what's *really* going on. Type GO OLT-130 from any prompt on the CompuServe Information Service.

ONLINE TODAY



King Associates

Sustaining the Pressure

The computer has eliminated yet another of life's petty annoyances: the flat tire.

The EntireControl tire management system adjusts tire pressure, provides pressure readings and warns drivers of slow leaks. The system can be installed in any late-model car.

The $500 package features three main components: a dashboard display to program and adjust tire pressure, a chassis-mounted detector/drive module that feeds information to the display and pressure controller, and a Programmable Actuator Transmitter that adjusts tire pressure. The PAT mounts to the underside of the wheel and inflates the tires with carbon-dioxide cartridges.

For complete information, call 408/970-8841.

—John Edwards

Software for Kids

Kids and computers are a good match, according to a survey by High/Scope Educational Research Foundation, which reviewed nearly 300 software packages for three- to six-year-old children.

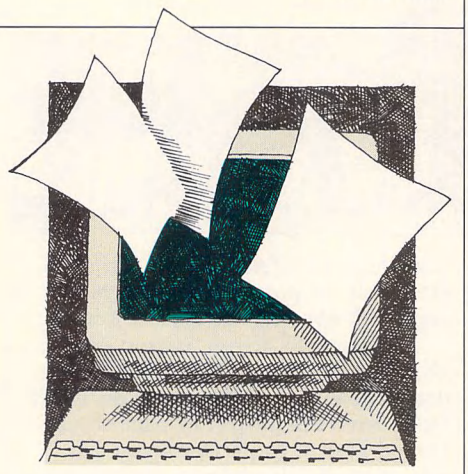
"Some of the software available for preschoolers can make a valuable contribution to a child's learning by stimulating practice of skills and concepts, encouraging thinking and problem-solving, and by helping children link symbols with real objects and events," says Warren Buckleitner, editor of the *1988 Survey of Early Childhood Software*. Effective learning with software can happen, he warns, only when the software is good and age-appropriate.

The survey indicates that there is a range of software available for young children, from workbook-style matching and computing to programs that stimulate creative artwork and story making. Quality does vary, however.

Top programs are Color Me (published by Mindscape), Mask Parade (Springboard Software), Muppets on Stage (Sunburst Communications), Kindercomp Golden Edition (Spinnaker), Number Farm (DLM) and Kid's Stuff (Stone and Associates).

"While not all of what we have seen is appropriate, we have found that there is plenty of good early childhood software available for most popular computer models, and recently the software for this age range has improved greatly," says Buckleitner.

He recommends that parents ask the following questions when searching for computer programs for young children:

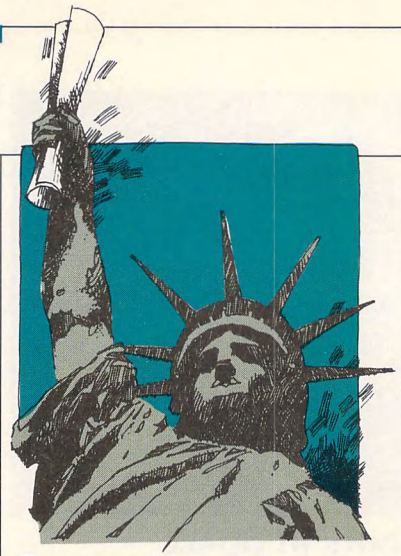


- Is it easy to use?
- Is it interactive?
- Is it child-proof, allowing children's hands to experiment with all the keys without causing a malfunction?
- Is it content strong?
- Is there novelty in the presentation of the content, so that a child can use the program over and over and still find something new?
- Is it designed with features for adults, so that adults can tailor the content to the needs of their children?
- Is it child-controlled, allowing a child to control the pace, to pause, to leave one activity for another or to stop altogether?

The survey is available for $20 from High/Scope Press, 600 N. River St., Ypsilanti, MI 48198; 313/485-2000.

For more information on selecting software for children, visit the Education Forum (GO EDFORUM).

—Cathryn Conroy



Export Licensing on Commerce Network

The US Commerce Department recently introduced the Export License Application and Information Network. With ELAIN, export licenses can be submitted and approved electronically.

The agency accepts electronically submitted export license applications for any destination in the Free World. The only commodity licenses not granted through the ELAIN system are those for supercomputers.

Exporters who receive electronic licensing authorization can enter the necessary export information into their computers. The information is transmitted to the Commerce Department through the CompuServe network.

Licensing officers have a database of more than 1 million approved license applications they can refer to when processing a new application. The Commerce Department transmits new, approved licenses back to the exporter through CompuServe. A backup, printed copy of the approved license is sent through normal postal channels.

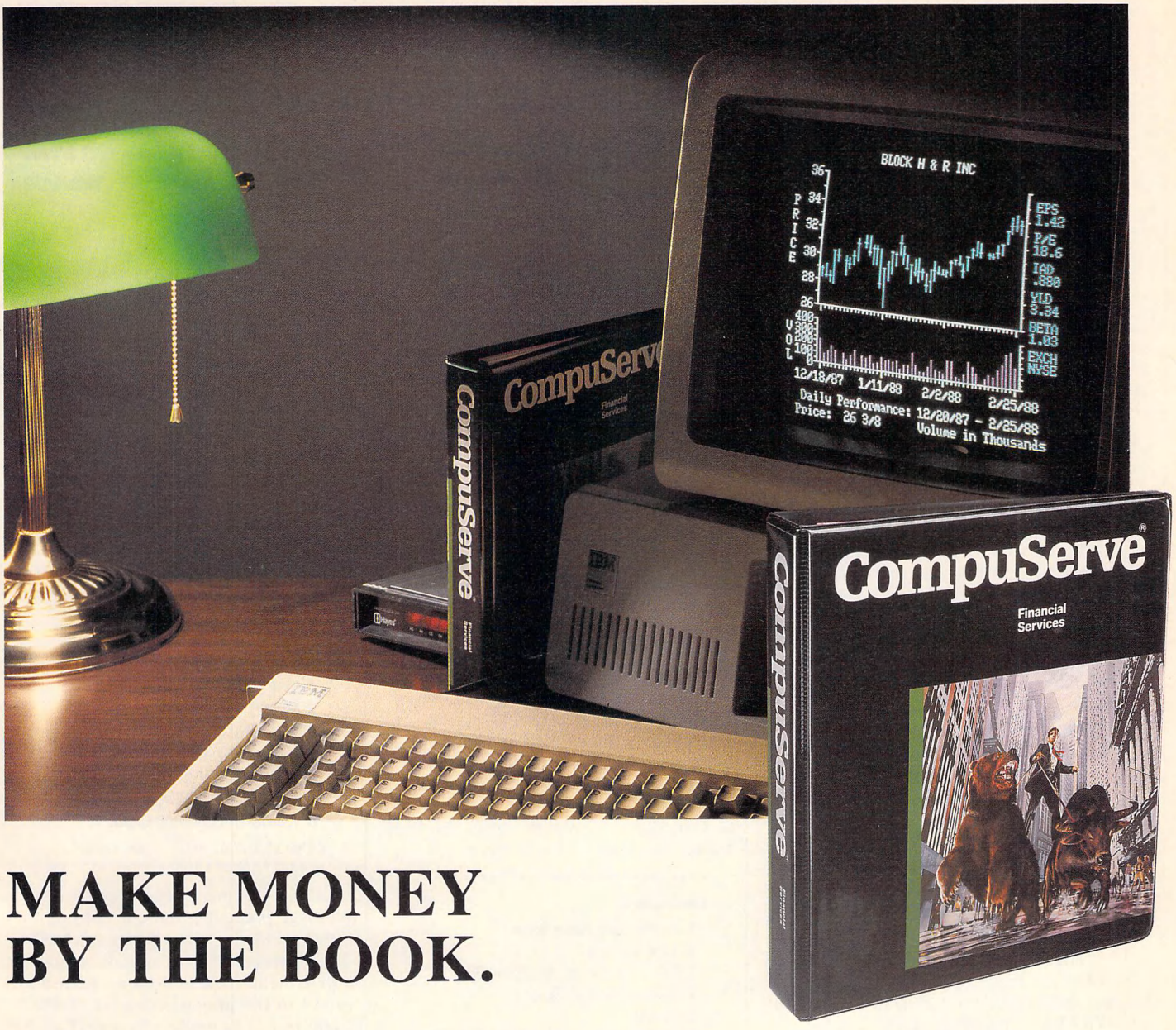
Using ELAIN, the Commerce Department is able to process applications more quickly than was possible with the manual system. The database of prior licenses ensures that all applications are treated consistently.

Exporters know the status of pending applications because Commerce acknowledges the receipt of electronic applications through CompuServe's electronic-mail facility.

Exporters who wish to use the electronic license system must apply to the Bureau of Export Administration, Office of Export Licensing, P.O. Box 273, Washington, DC 20044.

Additional information on ELAIN can be obtained by calling the Office of Export Licensing at 202/377-8540.

—James Moran



MAKE MONEY BY THE BOOK.

Get CompuServe's new Financial Services Users Guide, and be sure you're using all the online tools available to make better-informed investment decisions.

Whether you're a novice to online financial services or a seasoned user, this guide will help maximize your online dollars by letting you explore new or unfamiliar services offline.

Just released, it's an exhaustive index to the multitude of financial services available on CompuServe.

Two approaches to saving time, making money.

To help you determine the right service for the right investment situation, the guide contains sample reports from its two areas of focus.

The first area is on current and historical security prices. Stay on top of current market directions with SNAPSHOT and other new products. Learn innovative ways to fully utilize familiar services.

The second area concentrates on company information, presenting samples to help you select the best products for your purpose.

Create a historical financial overview of a given company. Identify your most attractive investment candidates with improved screening products. Scan tables of database updates and SEC filing deadlines to help you find financial information as it becomes available.

Look up online information ... offline.

Comprehensive appendices hold information that was previously found only online. Here, you can make calculated investment preparations offline.

Find ticker symbols more easily to track what you own. From several downloading techniques, select the one that best meets your needs after comparing detailed instructions.

Minimal investment, high return.

For a special introductory price of $9.95, you can learn the ropes of online investing, offline ... and be more fully prepared when you log onto CompuServe.

To order, enter "GO ORDER" at any "!" prompt.

CompuServe®

5000 Arlington Centre Blvd.
Columbus, Ohio 43220
An H&R Block Company

How To Get The Most Out Of CompuServe

Learning to 'Speak CompuServe'

by Charles Bowen and David Peyton

Learning a foreign language usually is easier and faster if you approach it from elements you're already familiar with. An instructor might start by teaching simple sentences, then use those sentences to construct conversations.

Since the command form of an online computer information service also is a kind of language, we can use a similar approach to learn to "speak CompuServe."

Last month we pictured CompuServe as a collection of linked screens, or *pages*, of information, each with its own unique page number, or *address*. Menus of general topics point to increasingly more specific menus, forming branches of information, like the branches of a tree. We also saw two basic ways for reaching any feature:

- *Through a trail of menus*, selecting a general topic from the top of the system (maybe "News/Weather/Sports") leads to a branch of other more specific menus until we finally reach the particular feature we want (such as *Online Today Daily Edition*).
- *By the "express lane,"* going directly to a specific system address using page numbers.

These page numbers—which we noted are made up either of letters and numbers (OLT-90, CB-1) or letters only (TRAVEL, NEWS, OLT)—can be thought of as the system's "nouns," in that they are the objects of CompuServe "sentences."

From this perspective, the system's "verbs" are its commands. Last month we met the most powerful of these verbs, the GO command, used to go directly to a specific page. For instance, GO OLT-90 takes us directly to the page of daily computer news stories in *Online Today Daily Edition*. If we translate this into English, we're actually telling the system, "I'll now go to the electronic screen labeled OLT-90."

All CompuServe commands can be defined as verbs because each has its own specific action to perform. In addition, commands, like a language's verbs, do not require the same syntax; some are used alone, while others, like the GO command, require an "object"—in this case, a page address. Groups of command sequences often are used in concert with one another, like sentences in a paragraph, to perform a specific task. One command takes us to the desired page; others move us among various menus and display the articles we find.

Finally, just as there are different forms of verbs in languages, CompuServe commands fall into distinct groups:

- *Navigation* commands transport us from one part of CompuServe to another, either for long-distance jaunts across the system or for short hops between menus.
- *Display* commands cause information to be sent to your computer. Usually this means placing text on your screen.

In the first group, GO is the most important navigation command, because it enables you to make grand leaps across the system, over many branches of menus to features. Other navigation commands are more specific. For instance: T (for Top), entered at virtually any prompt, takes you back to the first page of the system:

```
**********************************
CompuServe                    TOP
  1 Subscriber Assistance
  2 Find a Topic
  3 Communications/Bulletin Bds.
  4 News/Weather/Sports
  5 Travel
  6 The Electronic MALL/Shopping
  7 Money Matters/Markets
  8 Entertainment/Games
  9 Home/Health/Family
 10 Reference/Education
 11 Computers/Technology
 12 Business/Other Interests
**********************************
```

For new arrivals on CompuServe, the T command is a lifeline, because it allows them to explore without anxiety. If a newcomer gets lost among the branches of menus, he or she can type T to return to a familiar starting point.

The other three navigation commands—M (Menu), F (Forward) and B (Backward)—are most useful when you come across a sequence of menus containing related material. For example, The Business Wire (GO TBW) offers a continuously updated daily collection of press releases from various companies, all presented on linked menus like this:

```
**********************************
The Business Wire             TBW-2438
  1 IBM
  2 BIC
  3 INSPEECH
  4 INTL TELECHARGE
  5 MYERS INDUSTRIES
  6 STAGECOACH/APPLE
  7 BATUS/FARMERS GROUP
  8 HORIZON CORP
  9 APPLE COMPUTER
  0 FLEXI VAN
Enter choice or <CR> for more !
**********************************
```

The prompt at the bottom of the display tells us that more menus of stories follow so you can press the Return key to reach the next page:

```
**********************************
The Business Wire             TBW-2328
  1 COAST S&L
  2 ASHTON-TATE
  3 T W BEST/EAST LOBBY
  4 DOEL FIN
  5 WYSE TECHNOLOGY
  6 PDA ENGINEERING
  7 LAM RESEARCH
  8 SUN STATE SAVINGS
  9 WESTERN DIGITAL
  0 HOME INTENSIVE CARE
Enter choice or <CR> for more !
**********************************
```

The B command is used to return to the page preceding the current one. Suppose that, while skimming through The Business Wire, you stopped on the above menu page and then decided to return to the previous display (TBW-2438, in our example). Typing B at this prompt would cause the system to back up to the previous screen.

The M command has a special function: it takes you back to the menu that points to the current page. To see how it works, suppose you decided to read one of the press releases in The Business Wire, such as the Ashton-Tate statement on this menu. You type 2 at the prompt and the system displays that text, stopping with the familiar ! prompt. At the prompt, you can type another menu number—5, for example, to see the Wyse Technology release—or you can type M, which takes you back to the menu.

Note that the M command always returns you to the menu from which the current page originated. This means that by continuing to type M at subsequent prompts, you can backtrack along the branches of menus that led to the feature.

As we saw last month, the easiest way to display items on menus is to type the options' numbers. You can type a single number or a combination, such as 1,3,5 to see items 1, 3 and 5, one after another; 1-4 to see the first four items; or you may mix the two approaches, with something like 1,3-5 or 3-5,1. You can type ALL at a prompt to cause the system to display each item, one after another.

The second group of CompuServe "verbs"—display commands—build on this simple concept. The most powerful one in the group is S (Scroll). Typed at a ! prompt, S followed by a menu item number (such as S5) causes the system to display that item without pausing.

In displaying most longer textfiles, CompuServe automatically stops periodically (usually when all the lines of your computer screen have filled with words) and displays a prompt, such as "Press <CR> to continue !," to prevent the system from displaying text faster than you can read it. Using the Scroll command overrides these pauses, so that the text is displayed from beginning to end without halts.

You can type S ALL to scroll every choice on the current menu. The S command can be used in the middle of a textfile. Suppose you've begun reading a file from the menu and it halts with a "Press <CR> to continue !" prompt. Type S at the prompt (without a menu number) and the system will display the rest of the file without pausing.

Another pair of display commands are N (Next) and P (Previous). Typed at a prompt at the bottom of a textfile, N goes to the *next* item from the last selected menu. In other words, if 5 is the last menu choice you made, N directs the system to display item 6. Similarly, P goes to the *previous* item from the last selected menu, so if 5 is the last choice, P displays item 4.

The R (Resend) display command causes the re-display of the current page. In other words, typed at any prompt, the R command merely retransmits the page. This is useful if the current page has scrolled off the screen or has been garbled by static on the phone line.

Finally, help is available at virtually every CompuServe prompt. If you type H (Help) or a question mark (?) at a prompt, the system displays definitions of the options presently open to you. Other Help messages are available within specific services.

Next month we'll continue looking at commands, shifting our focus to control codes that regulate the flow of information from CompuServe to your screen and to system commands that set key parameters for your display.

Charles Bowen and David Peyton co-authored How to Get the Most Out of CompuServe *and* CompuServe for IBM PC Power Users. *Bowen's User ID number is 70007,411 and Peyton's is 76703,244.*

Talk to Us

Online Today Daily Edition has a Feedback area for letters to the editor. Simply type GO OLT-33 at any prompt in the CompuServe Information Service.

ONLINE TODAY

There's a world of knowledge waiting...

all he has to do is touch a button.

Imagine touching a button and getting the latest information on science, the arts, sports, history. technology, medicine, geography, and much more. Imagine an encyclopedia that's updated every 3 months. Imagine a library that never closes. Now, you can give your child all of these things with Grolier's *Academic American Encyclopedia*® — the "premier" online encyclopedia.

- More than 31,000 articles at your child's fingertips — covering everything from archeology to zoology.
- Special Fact Boxes provide important information about every country in the world, every state in the U.S., and every U.S. president.
- Updated four times a year to help your child stay on top of new technologies, current affairs, scientific breakthroughs, and much more.
- Extensive cross-referencing directs your child to other relevant articles.

Imagine — an online encyclopedia that keeps pace with your child's enthusiasm for learning.

Subscribe today — GO AAE on CompuServe®.

Also on CompuServe® — GO WHIZ to play The Whiz Quiz™ trivia game.

Grolier Electronic Publishing, Inc.
95 Madison Avenue
New York, New York 10016

Academic American Encyclopedia is a registered trademark of Grolier Incorporated, Danbury, CT.

The Whiz Quiz is a trademark of Grolier Electronic Publishing, Inc. CompuServe is a registered trademark of CompuServe Incorporated.

GO OLI or circle 6 on the Reader Service Form.

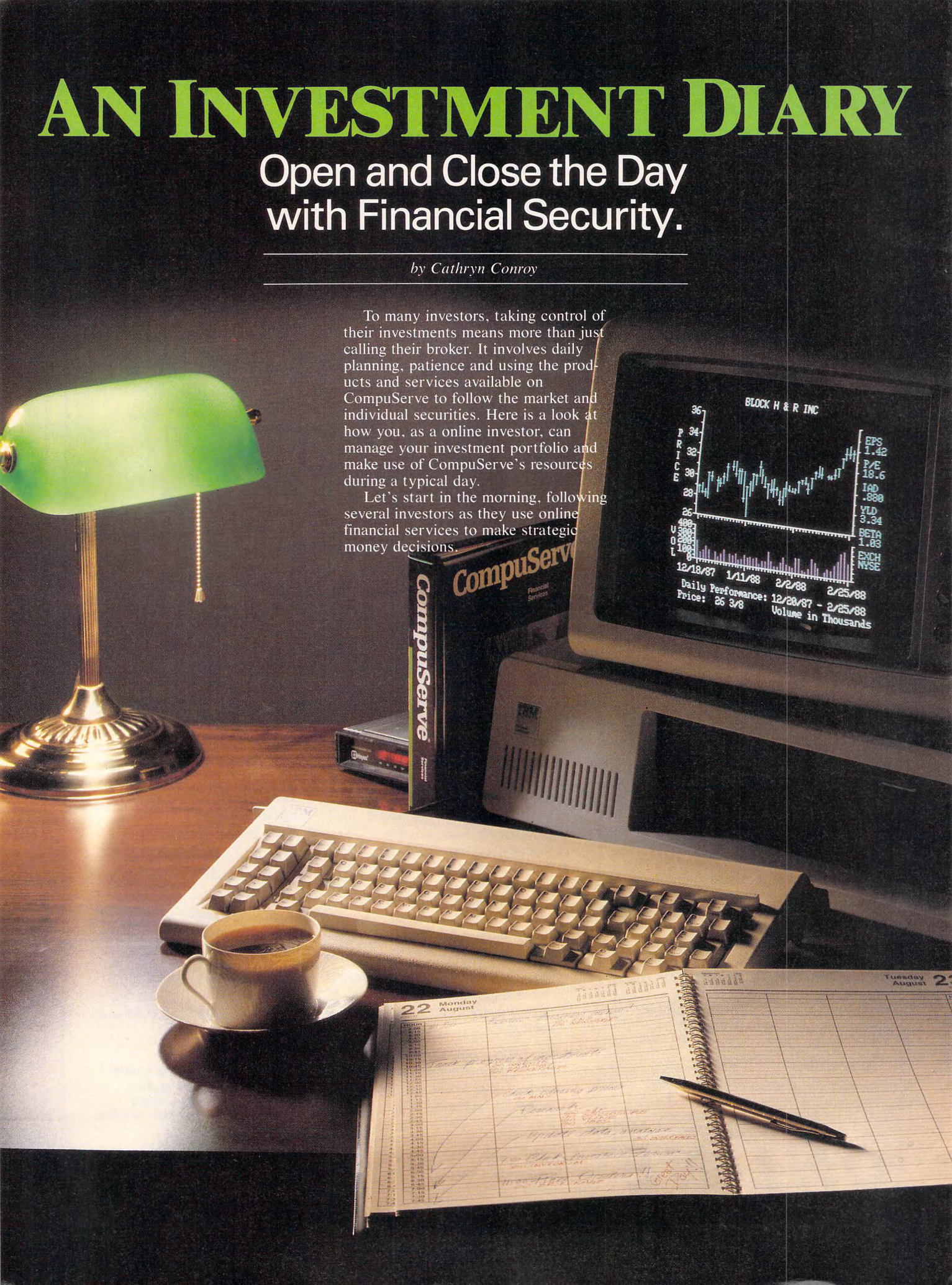
AN INVESTMENT DIARY

Open and Close the Day with Financial Security.

by Cathryn Conroy

To many investors, taking control of their investments means more than just calling their broker. It involves daily planning, patience and using the products and services available on CompuServe to follow the market and individual securities. Here is a look at how you, as a online investor, can manage your investment portfolio and make use of CompuServe's resources during a typical day.

Let's start in the morning, following several investors as they use online financial services to make strategic money decisions.



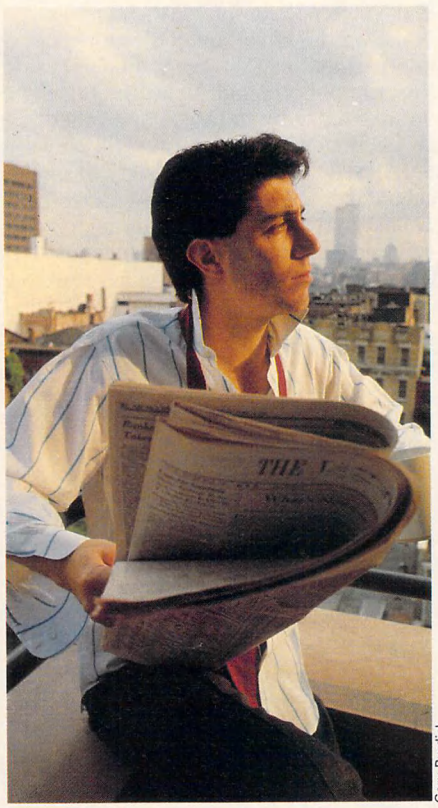
6:30 am
Review latest business news

The first task of the day is a perusal of the Executive News Service (GO ENS) or NewsGrid (GO NEWSGRID) for the latest business information. By setting up a personal clipping folder in ENS and glancing at the business headlines in NewsGrid, OTC NewsAlert and McGraw-Hill News SNAPSHOT, you'll be able to tell—while you're sipping your morning coffee—whether the Tokyo Exchange closed higher or lower, the status of the London market, how the dollar performed against foreign currencies on those exchanges and the current exchange rate for gold—in short, you'll be aware of many of the forces that act on the domestic markets at the opening bell.

In addition, you'll get a good idea of how the New York Stock Exchange is expected to fare in the coming hours. You can also track news events that might affect the market, such as corporate merger announcements or the release of government trade figures.

Harvey H. Shapiro, a New York attorney and a self-described computer neophyte, says that the online business news services provide him with all the available public information at a nominal cost. "The diversity of the wire services covered provides me with news often not picked up by my broker's machine. This helps my decision-making in a fundamental way with at least some basis of current information," he says.

And Shapiro isn't just talking theoretically. He recently invested in a convertible bond, which promptly plummeted some 23 points, causing him to lose about half of his capital. But after carefully reading the company's statements and news on ENS, he realized that there had been a "panic overreaction" to the news. Based on the electronic news reports, Shapiro decided to hang on. "The bond has now recovered all but six points, and I am breathing a bit easier. If the Executive News Service was not immediately and constantly available—enabling me to reassess my position—I do not think I would have held on," he explains.



Gary Burdick

ENS aids decision-making: *Hoffman*

Jared L. Hoffman, a 25-year-old New York City resident who works as a senior consultant and manager of personal computer support for one of the largest international developers of banking systems and technology, uses ENS for a specific purpose: He tracks the presence of insider or block trading activity on the stock market.

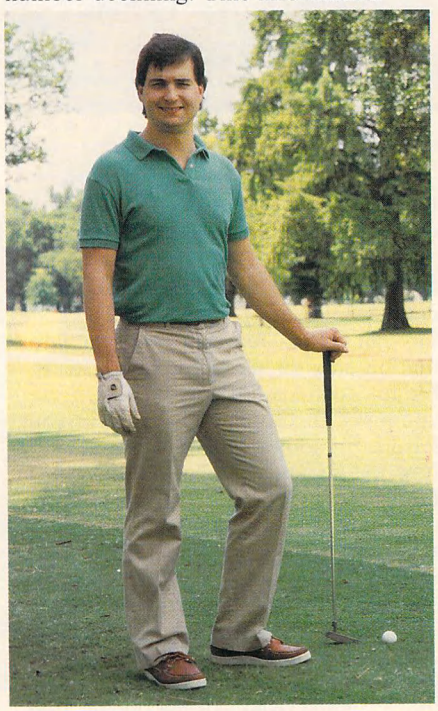
"I use money flow price/volume analysis to find situations in which there is a divergence between price and inflow/outflow of traders' positions," says Hoffman. "By setting up clipping folders in ENS that collect news items about the industries I follow, I am able to ensure that I will see all the news, quarterly and annual reports, Securities and Exchange Commission and 144 block sales and insider trade registration forms for these companies so that I can make my decisions. I need to be confident that I know all the news that is publicly available about a given situation."

With Shapiro and Hoffman, finish your coffee and head off to work, knowing that you now have a firm perspective—based on solid, fact-filled news—on how the market should react.

10:45 am
Track progress of investments

When you take a mid-morning break, check into Quick Quote (GO QQUOTE) and track the progress of your investments by typing in the ticker symbol (or company name preceded by an asterisk if you don't know the symbol). There is a 7-cent surcharge for each quote requested (the surcharge is 2 cents if the market is closed).

If you want to follow general trends of the market, type GO SNAPSHOT for a quick look at the current state of the market. You'll see the current values, the high, low and change of the Dow Jones Industrials, Standard & Poor's 500 Index, NASDAQ Composite, London Gold Fix. Japanese yen, Deutsche mark and British pound are also included. In addition, the latest index value and percent change for the NYSE is displayed, with volume broken out by up and down and issues sold by the number advancing and the number declining. This information



Frank Hampson

Better sources online: *Boudreau*

Photographic Illustrators

illuminates the direction and breadth of the trend.

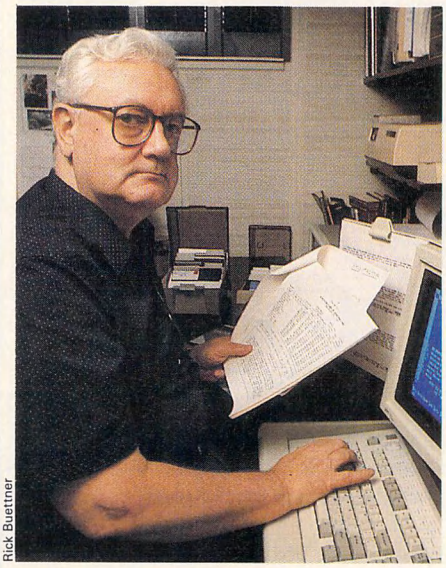
If you see a trading opportunity, you can cash in on your knowledge by accessing one of the online discount brokers (GO BROKERAGE).

Engineer Dennis E. Boudreau, who works for a major paper company in Shreveport, La., finds the online quotes a better source of information than calling his broker. He says he makes his investment decisions based on technical analysis. "Since I'm an engineer, I get along well with numbers. Technical analysis techniques have a special appeal to me," he says.

Boudreau is the kind of investor who doesn't act on the spur of the moment. He likes to ponder the pros and cons (usually best done on the golf course, he says), and one of the best ways to get all the information he needs is through the building of historical charts. "The quotes database is one of the easiest ways of retrieving data short of having someone else do it for you," he says.

6:00 pm Check closing prices of stocks

Your investment savvy has been working for you all day, and when the market closes, you can assess the implications of the day's events with closing prices on stocks, securities and net asset values of mutual funds through Quick Quote. Review the information on your screen or save it to a file for downloading to your microcomputer so you can analyze it at your leisure. In addition, you can review how the market performed today and how it is expected to perform tomorrow by reading the daily equity, currency and debt market analysis reports in MMS International (GO MMS). Here you'll get the latest assessments on bonds, currencies, stocks, interest rates, notes and more with the specialized economic and technical perspective available from MMS experts. You can also find valuable tips in the FedWatch section of MMS International on the government's reports of international market news, Federal Reserve policies and their effects on the market, growth trends and other areas. In addition, McGraw-Hill News SNAPSHOT features a weekly business calendar, published on Friday afternoons, that will alert you to major economic announcements expected from Washington the following week, corporate news, conferences and more.



Rick Buettner

Access quotes quickly: *Dwyer*

Richard A. Dwyer, a retired United States Foreign Service officer now living in Washington, D.C., is amazed by the sheer amount of data available electronically. "The quantity of information available from CompuServe could be overwhelming if it were not for the fact that it can be accessed quickly anytime, and then sorted, searched and organized with great facility," Dwyer says. He believes that an investor who uses these financial databases may become more knowledgeable about his specific fields of interest than the average stockbroker.

7:00 pm Do research before buying

If you have been mulling over the performance of your stocks, the day's news events or even a tip from a business associate, you may want to do some research before actually buying or selling.

Trading histories and the market performances of particular securities candidates can be checked by using such services as PRICES (historical securities price and volume information), TREND (graphic display of price and volume information), EXAMINE (issue-specific information such as the exchange the security is traded on), PRISTATS (trading statistics over specified date ranges) and DIVIDENDS (dividend splits and interest information).

If an investment candidate still looks promising after your investigation in these services, continue with the following specialized databases that will focus on a company's past performance and future outlook.

Standard & Poor's Online (GO S&P) offers company profiles that include a balance sheet, calendar year history and fiscal year history. You can also get an outlook, business line table and market action report. In addition, investment candidates selected by S&P experts can be identified by using the Master List and Recommended Ideas sections.

Disclosure II (GO DISCLOSURE) offers detailed information on individual firms compiled from SEC filings, including a description of the business, management discussion, ratio report and full financial and ownership information.

Value Line Data Base II (GO VLINE) provides annual and quarterly reports as well as three- to five-year projections for specific companies.

I/B/E/S (GO IBES), the Institutional Brokers Estimate System, provides consensus earnings estimates and expected growth rates on more than 3,400 publicly traded corporations. The estimates are computed by compiling earnings forecasts made by more than 2,500 professional securities analysts at 130 brokerage and research firms.

An avid user of the historical pricing databases is Duncan G. Cumming, an electronics engineer from Los Angeles, who says he approaches investment decisions from a scientific point of view: Kelley money management theory combined with plenty of street smarts.

Cumming says he subscribes to CompuServe solely to access the historical pricing databases. He uses them to research ways of playing the option market for profit, mainly by checking

Don Dondero

Investing strategically: *Cumming*

out strategies that have worked in the past. His most lucrative investment strategy is to buy call options on the target company of an announced hostile takeover, in the hope that a higher bid will be forthcoming. But the takeover market isn't always active, so he also researches alternative investment strategies.

"Before investing serious money in any strategy, I read the available published literature and then play the strategy using historical data. I use standard techniques to ensure that my sample is statistically significant," Cumming says. He then makes a few investments, using the smallest possible amount of money so he can check for practical difficulties that may arise.

Cumming's strategy is to invest only money he places in his "bankroll"—income he earmarks for investing purposes. He is firm in his belief that investors should study the market. "If you don't want to make the effort to thoroughly understand the stock or bond market, then you are better off with a risk-free investment, such as Treasury bills," he says.

8:00 pm Update data and analyze

Evening is a good time to update the data in your specialized investment package or spreadsheet software so analysis can be performed. CompuServe offers three data interfaces—MQINT, MQDATA and IQINT—so information can be easily retrieved and assimilated into a software program either directly or via file transfer. Type GO INTERFACES to obtain more information and view these programs.

9:00 pm Compare notes with others

Before making that critical buy or sell decision, many investors make one more online stop: the Investors' Forum (GO INVFORUM). Here you'll find investors who know the market well and are willing to share their expertise with others. Professional stockbroker Paul R. Tautvaisas describes the forum as a cross section of the investment community.

Dwyer insists that CompuServe's greatest financial service is the membership of the Investors' Forum. "They are remarkably knowledgeable in a variety of areas, helpful to the novice and stimulating to the more experienced investor," he says.

"The forum offers a place to test out ideas, engage in egoless debate and learn from others' experiences," says Hoffman, who checks into the forum at least twice a day.

Managed by Forum Administrators Mike Pietruk and Harry Knutkowski, the Investors' Forum operates like other CompuServe forums with a message board, conference area and libraries full of public-domain software that will make analyzing investment data easier.

Dennis Boudreau finds that the Investors' Forum is one of the few places he can go to talk about investing "without having to deal with one-upmanship. If you ever had anybody tell you about how much money he made by beating the market, you know what I mean. Nearly all serious investors have had to eat some pretty bad losses at one time or another," Boudreau says.

As a graduate student in business

Cathrine Reeve

Analyzing data easily online: *Pietruk*

administration at Northwestern University, Ed Biskind says he learns as much, if not more, in the Investors' Forum. "There are people here who are extremely knowledgeable, helpful, witty and open about their ideas. The prevalent attitude is one of camaraderie and a desire to refine one's thinking about the market by talking with others of various levels of ability and experience."

Anne Hennegar, a self-employed business researcher living in Burlingame, Calif., says that the message threads in the Investors' Forum offer unique information not duplicated in any other medium, electronic or print.

11:00 pm Place next day's orders

If, based on your research, you have decided to buy a new security, you don't have to wait until morning to place your order. Buy and sell orders can be placed at any time. If the market is closed, orders will be ready for immediate execution when the market opens. Type GO BROKERAGE for a list of online brokers, and follow the prompts to place your order.

Cathryn Conroy, a contributing editor of Online Today, *is based in Gaithersburg, Md. Her CompuServe User ID number is 70007,417.*

Buy! Sell! Hold! How Analysts Decide

by Carole Houze Gerber

Have you ever wondered how Wall Street analysts decide what's hot and what's not?

No, they don't rely on dart boards or crystal balls. Instead, most—like Thomas Canning, a senior analyst with Standard & Poor's—immerse themselves in the market segments that are their specialties. A 30-year veteran of Wall Street, Canning, a Chartered Financial Analyst, passed a lengthy, rigorous examination to acquire this respected professional designation.

Canning's education and experience are put to the test daily as he tracks 42 stocks in his specialties, the airline and aerospace industries. "I look at the prices continually," he says. "I start the day with a cup of coffee and a big stack of newspapers. I also gather information from Standard & Poor's regular internal reports provided by our research department and from my sources within the industries."

Canning and other S&P analysts are primarily concerned with the future earnings outlook of the companies they follow. To value each stock, or determine its worth, analysts carefully examine the company's current price/earnings ratio in relation to the stock's previous performance. The price/earnings ratio—or P/E ratio, as it's often called—is determined by dividing the current stock price by the annual earnings per share. For example, if the current stock price is $20 a share and the annual earnings per share was $1, then the P/E ratio is 20.

"We also look at the type of P/E ratio that's usually accorded to the industry the company is in," says Canning. "Then we relate this data in terms of the relative value of the market." (The current P/E ratio for the S&P 500, as well as industries tracked by S&P, can be found in the Detailed Issue Examination Service. GO EXAMINE)

So, analysts evaluate a stock's P/E ratio in three ways: the stock's previous performance, how it stacks up against other stocks in the same industry, and how it compares to other stocks in the market as a whole.

Because thousands of stocks are traded daily on the New York Stock Exchange, the American Exchange and the Over-the-Counter market, checking a stock's P/E ratio against all these issues would be an impossible task. Instead, Canning and other analysts look at the Standard & Poor's 500 Index, which provides a bird's eye view of the health of the market by tracking 500 representative stocks from a variety of industries traded on all exchanges. The Index is weighted based on the price of each company's stock multiplied by the number of shares on the market. As a result, each company's influence on the market is accurately portrayed.

Education and experience tested daily: *Canning*

At Standard & Poor's, the recommendations of Thomas Canning and other analysts are categorized via a five-star ranking system, according to Michael Grossman, S&P's director of research, whose job is to "oversee and challenge" all recommendations. "It's part of a checks-and-balances system," Grossman says. "I review rankings every day, especially those stocks whose rankings have changed. I also look at an internal report that reflects sharp price or earnings changes on the 800 stocks our analysts follow."

At Standard & Poor's, stocks are internally ranked as follows:

Five stars: "A buy, and we also expect the stock to be an above average performer and to rise in price."

Four stars: "We think it's an above-average performer and we'd advise accumulating that stock."

Three stars: "An average performer."

Two stars: "A below-average performer."

One star: "Sell! We think the stock will go down regardless of the market."

In addition to Grossman, the star ranking is also regularly monitored by Standard & Poor's investment committee, which is composed of the senior vice president for equities, the editor of *Outlook*, a weekly investment advisory publication, a technical analyst and two senior analysts. Grossman is also on the committee.

Many of the five-star stocks from these recommendations appear on CompuServe on S&P Online's (GO S&P) Master List or on Investment Ideas. The stocks on the Master List are favored by S&P analysts and the S&P investment committee for meeting specific individual investment goals, such as accumulating retirement or education funds or building an estate.

Investment Ideas, which is popular with brokers and financial advisers, lists stocks that S&P analysts expect to outperform the market over a 12-month period. The investment goal here is one of active, aggressive management of a small portfolio.

Stocks on the Master List are divided into four categories: those with long-term gain, those with promising growth, cyclical/speculative stocks and income stocks with inflation. Stock categories in Investment Ideas include long-term growth, emerging growth, income/total return, speculative/cyclical and special situations.

Each category on Master List and Investment Ideas contains between eight and 10 stocks, each with a concise recommendation signed and dated by an S&P analyst. There is a $2 surcharge for displaying either the Master List or Investment Ideas. An April 8, 1988, recommendation from Thomas Canning on Martin Marietta, for example, reads as follows: *Investment Ideas/ Long Term Gwth (S&P) 08-Apr-88 Martin Marietta (ML, 46, NYSE)*

This aerospace defense contractor prospering despite tight environment for industry ... ML successfully gets new large contracts ... most recent: National Test Bed which tests Strategic Defense Initiative on computer, also Forward Air Defense (FADDS) ... Both have possible long lives ... ML also has General Electric contract for 15 satellite launches on Tital III rockets ... Could get part of government telecommunications system FTS2000 later in '88 ... Estimate $5.25 got '88 ... Low P/E shares attractive for long term.

According to Joseph Oppenheimer, S&P's senior vice president and general manager of electronic information services, stocks are removed from the Master List and Investment Ideas when circumstances warrant this change. When a stock is removed, the analyst's written text explains why. "There's no average time for a stock to stay on," Oppenheimer says. "A stock that's an income stock could stay on quite a while, as long as it's yielding above a certain percentage. On the other hand, if, for example, it's a pharmaceutical company and the FDA suddenly removes its hot new drug from the market, it will move off the list quickly."

Oppenheimer adds that investors using the Master List and Investment Ideas should also look at the S&P Online statistical information, updated weekly, which includes earnings per share, dividends per share, market action, balance sheet and history on more than 4,800 companies. "After buying a stock, the investor should periodically check the text and statistics pages for new developments," he advises.

Oppenheimer's advice about gathering as much information as possible before and after making investment decisions dovetails neatly with the comprehensive approach used by Thomas Canning and other good Wall Street analysts.

Canning's message to individual investors: "Don't just buy it and file it away. The most important thing you can do is to keep abreast of everything that's going on with your stock."

Carole Houze Gerber is a contributing editor of Online Today. *Her CompuServe User ID number is 70007,1215.*

Tips for the Novice

by Cathryn Conroy

While mastering the techniques of investing is a complex process that can take years, investors can tap into online financial services to quicken that process as they make investment decisions. What can a novice investor do to shorten the learning curve? Some experienced investors on CompuServe offer their thoughts.

Start small. Harvey H. Shapiro, New York attorney and personal investor, suggests investing "less than you can afford to lose. Know as much as possible about the product you choose to use and make rules and keep them."

Interact with more experienced investors. "Be aware that you are in an arena with the most sophisticated investors in the world. It is hard for the small investor to compete consistently," Shapiro says. "Tuning in to the Investors' Forum for a few months and asking questions is a great way to get your feet wet." He considers the Investors' Forum his most useful investment tool, saying that the exchange of ideas and the interaction with novice and expert investors has helped to shape his investment philosophy.

Read voraciously. "Before investing in the stock market, read books on the subject, obtain reliable sources of information (such as CompuServe) and have a clear idea of what you want to achieve," suggests Duncan Cumming, an electronics engineer from Los Angeles who is a regular user of CompuServe's historical pricing databases.

Dennis Boudreau, an engineer who works for a major paper company in Shreveport, La., agrees. Boudreau cites *The Wall Street Journal*, *Fortune*, *Forbes*, *Investors Daily*, *American Demographics*, *The New York Times*, *Financial World*, *Money* and *Mutual Fund Forecaster* among the newspapers and magazines a personal investor would find helpful. He also mentions annual reports, books on investing and investing classes taught at local colleges.

Learn how to download data. Anne Hennegar, a self-employed business researcher based in Burlingame, Calif., has found it helpful to learn the basic command structure of the CompuServe Information Service and then to learn how to use one of the automatic downloading programs, such as TAPCIS or AUTOSIG, to capture financial data quickly. For more information about these programs, refer to the TAPCIS Forum (GO TAPCIS) or the IBM Forums (GO IBMNET). Also, refer to the *Financial Services Users Guide* (see page 18).

Check online often. "Check into the Investors' Forum at least once every few days, because much of the commentary is quite timely," suggests Jared L. Hoffman, a New York-based computer consultant for a large international developer of banking systems and technology.

Finally, ask 'dumb' questions. "Be brave and throw in an opinion or an idea. There is no need to fear sounding dumb because the forum members are always willing to help bring someone up to speed," Hoffman says. "Debate has grown heated on occasion, but never with hard feelings. There is a firm and often-expressed respect for the diverse opinions that make the forum interesting and educational."

Boudreau's summation is typical. While being online has not presented him with unique investment opportunities, he says he has definitely learned something from the financial services on CompuServe. "All of the little things have made a difference," he says. "It may be subtle—perhaps just getting me to pause long enough to look at something from another perspective—but there is a difference nonetheless."

New *Financial Services Users Guide* Offered

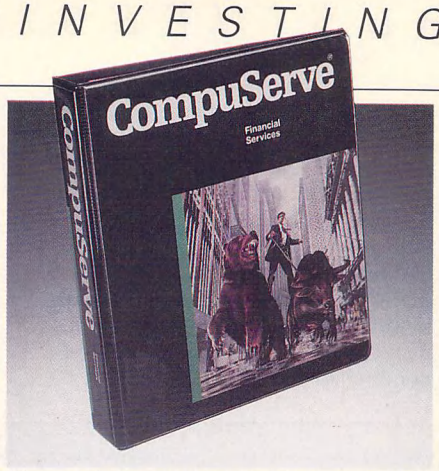
by Carole Houze Gerber

A clear, readable guide to CompuServe's online financial services is now available. The new *Financial Services Users Guide*, conveniently presented in a three-ring tabbed binder format, contains eight chapters and several appendices packed with information that will help both new and experienced users take advantage of online financial services in a cost- and time-efficient manner.

Written for a non-technical audience, the guide provides an offline tour of the financial databases and reports available through CompuServe, as well as specific steps for accessing products with advanced features.

The new *Financial Services Users Guide* provides several distinct advantages to readers:

- It describes the newer online financial products and services such as Current Market Snapshot, OTC NewsAlert, S&P Online and others that have not received comprehensive write-ups in other manuals.
- The *Guide* includes samples of reports for most financial products so users can study them offline and select the one that best meets their needs before accessing them online.
- A description of each downloading tool is addressed in the *Guide* so that users can study alternative methods for downloading data beforehand.
- A special appendix explaining how to build and use a ticker file is included in the new *Guide*, along with documentation on how to create a file.
- Other appendices describe information, such as lists of ticker symbols, that were previously available only online.
- Some financial services have advanced usage procedures—such as the way adjustments are made for stock splits—with which subscribers may not be familiar. Such usage procedures are clearly explained in the new *Guide*. Designed for ease of use, the *Guide* features an extensive index that will quickly guide readers to specific areas of interest. Another feature designed to make using the *Guide* fast and easy is the bold type listing at the top of each page of services described below along with the appropriate GO commands.



Clear and current: *Financial Users Guide*

Chapters include Getting Started; Current Quotes Database, which details the financial reporting services using the Current Quotes database of 15-minute delayed trading information; Historical Quotes Database, which provides an in-depth tour through MicroQuote II (a service that is made up of CompuServe's historical pricing programs); Interacting with Your Microcomputer, which describes how to retrieve, format and save a variety of financial information; Identifying Investment Candidates, a description of menu-driven screening tools; Company Analysis, which explains how to use online services to quickly research companies from several financial perspectives; and a final chapter describing methods for using other financial forums and brokerage services.

Ease of use is the major focus of the *Guide*, according to Product Manager Scott Clyde. "In preparing this guide the stress was put on standard procedures rather than on exceptions to the rule. These are also covered, of course, but are organized in such a way that they are not confusing," he says. "The guide is clearly and concisely written, and descriptions also include screens showing exactly what will be viewed online.

"The purpose of the new *Financial Services Users Guide* is to save subscribers time and money, and to eliminate frustrations associated with searching online for answers," Clyde adds. "Those answers are now included in the *Guide*, which is a valuable and handy reference for anyone using online financial services."

The *Guide* is available exclusively through CompuServe and for a limited time will be offered at the promotional price of $9.95—a $4 savings off the full price of $13.95. To get your *Financial Services Users Guide* type GO ORDER at any prompt.

Talk to Us

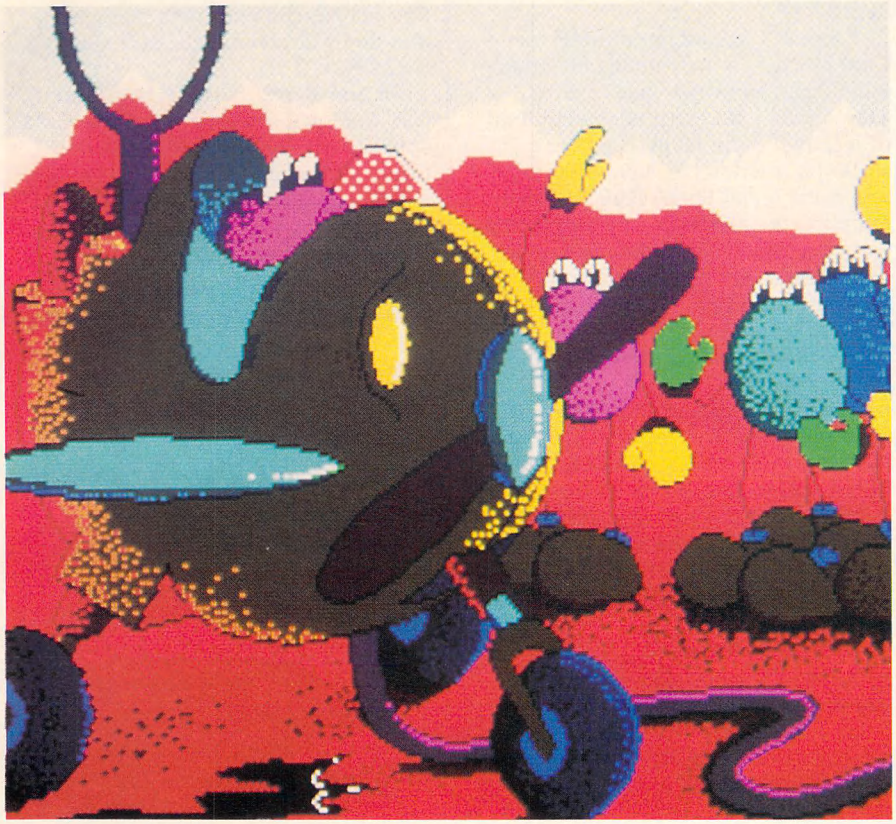
Online Today Daily Edition has a Feedback area for letters to the editor. Simply type GO OLT-33 from any prompt in the CompuServe Information Service.

ONLINE TODAY

Find Financial Information

The following list of GO commands will help you locate financial services mentioned in the cover article.

Executive News Service	(GO ENS)
NewsGrid	(GO NEWSGRID)
OTC NewsAlert	(GO OTCNEWS)
McGraw-Hill News SNAPSHOT	(GO MHSNAP)
Quick Quote	(GO QQUOTE)
Current Market Snapshot	(GO SNAPSHOT)
Online discount brokers	(GO BROKERAGE)
MMS International	(GO MMS)
MicroQuote II programs	(GO PRICES, GO TREND, GO EXAMINE, GO PRISTATS and GO DIVIDENDS)
Standard & Poor's Online	(GO S&P)
Value Line Data Base II	(GO VLINE)
Disclosure II	(GO DISCLOSURE)
Institutional Brokers Estimate System or I/B/E/S	(GO IBES)
MQINT, MQDATA and IQINT Data Interfaces	(GO INTERFACES)
Investors' Forum	(GO INVFORUM)



Standard to shape the future: *Graphics Interchange Format*

A Meeting of the Minds

Developers Ally Online to Create GIF Applications

by Daniel Janal

The computer world is clamoring for improved graphics that make computers easier to use and more pleasing to the eye.

CompuServe is trying to meet those demands with the Graphics Interchange Format. GIF, which was introduced in May 1987, supports higher resolutions than most graphics formats, and takes input from video cameras and scanners. It works on standard computers, unlike other formats that require expensive hardware.

Although GIF's benefits are obvious, CompuServe couldn't create an industry standard alone. It needed to create an alliance with programmers who would develop applications to make GIF useful. "We needed to gain critical acceptance and a reputation for the GIF format," says Rob Vitolins, manager of graphics technology for CompuServe.

To meet these goals, CompuServe created special incentives for developers: the source code, unlimited support and free online time in a special meeting place in the Picture Support Forum (GO PICS).

Programmers rose to the occasion and accepted the challenge of shaping the future of the computer industry.

"It has worked well," says Vitolins. More than 150 developers working on virtually every type of computer have taken an interest in developing software to support GIF. "Some are doing it for the technical challenge; others for the potential of making money by producing commercial programs."

The coalition could offer great benefits for all CompuServe subscribers. "As we roll out other microcomputer software products, we will take this concept and expand it for other products," says Craig Knouf, CompuServe microcomputer software quality assurance coordinator. Future products will take advantage of the features of a well-designed graphics system. "We will put more intelligence and responsibility on the microcomputers," he says. Those products will make computers easier to use and will deliver more benefits than today's machines offer.

Some software publishers are incorporating features of GIF. Two widely used graphics programs, INSET and HIJAACK, have utilities that convert GIF files to other picture formats.

Developers on CompuServe also see the market potential for GIF. "We are developing GIF support for art and animation and special-effects programs for the IBM PC world," says Douglas E. Wolfgram, president of Microtex Industries, which developed the best-selling PC Paint program, published by Mouse Systems. "We could not have done it without the help of the Picture Support Forum. To us, the developers group is the motivation behind making the GIF format a standard," he says.

Microtex now markets GRASP, an animation system; Pictor, a paint program; and ARTOOLS, a special effects package for GRASP. All products support GIF. Those products will be available for purchase from CompuServe in Softex (GO SOFTEX) and marketed through stores from Paul Mace Software.

Kevin A. Mitchell developed GIFConverter, which converts files between GIF and Macintosh formats. A demonstration version called GIFCONV.SIT is available in the Picture Support Forum's Library 1. Ordering information for the shareware product is contained in the file GIFABO.TXT.

"I would not have been able to write my GIF software without help from CompuServe, mainly because of the complexity of the compression algorithm," says David G. Holm, who developed an offline GIF decoder that simulates more than the eight native colors on the Texas Instruments Professional Computer. The shareware program is called GIF.EXE and is available in Library 13 of the Texas Instruments Forum (GO TIFORUM).

You don't have to be a developer to take advantage of GIF. Any CompuServe subscriber can download GIF files of clip art and reproductions of classic paintings to use in newsletters and greeting cards, for instance. Log onto the Picture Support Forum and follow the instructions for your computer.

Although GIF has been on the market for only a year, dynamic and tireless developers using CompuServe are making it a force in the industry.

HyperCard Forum Frees Your Imagination

by Michael Naver

Ken Love uses it to create a Japanese-English dictionary. Betty Russo finds its clip art handy to add graphics to the newsletters she produces. Bill Weylock keeps his calendar and "to do" list with it. Many people use it to play a war game called *Battle of Britain*.

What computer software could be so versatile as to lend itself to so many varied uses?

HyperCard.

Anyone who has a Macintosh computer can use HyperCard software, which comes bundled with the Mac. But even those who use it can't always agree on what HyperCard is and what it does best. About all they can agree on is that they like it.

That was one reason Mac enthusiasts decided to create a HyperCard Forum (GO APPHYPER) on CompuServe late last year. As Forum Administrator Neil Shapiro recalls: "Nobody could agree on whether HyperCard was about games or about serious business uses."

HyperCard Forum members can chat electronically with Danny Goodman and Dan Shafer, authors of two leading books on HyperCard, and with Dan Brogan, *Chicago Tribune* computer columnist and HyperCard enthusiast. People from Apple Computer Co. show up regularly for conversations on the message board and in online conferences.

Shapiro has his own definition of HyperCard: "It's a graphics-programming language that lets you access all of the Mac's functions—buttons, windows, pull-down menus—without having to understand the programming behind what the Mac is doing."

Or, as the manual defines it: "HyperCard looks for and stores information, words, charts, pictures, digitized sound or photographs on any subject. Any piece of information in HyperCard can connect with any other piece."

This flexibility is part of the HyperCard Forum's appeal, Shapiro says. "About half of the people use the forum for fun and half for business. It's a wonderful place to exchange ideas. Someone uploads a notepad stack, for instance. Someone else downloads it, expands the original idea and uploads it again. This can go through several iterations."

"Stack," according to the HyperCard manual, is "a named collection of individual electronic 'index cards'." The "cards" are the fundamental unit of information in HyperCard.

So far, there have been relatively few commercial HyperCard programs, but experts see a bright future. Interactive education and training is one potential area. Another is as a front-end for large corporate multimedia databases of graphics, sound and full-motion video stored on video disks and CD-ROM disks.

You get an idea of HyperCard's wide range of uses from the contents of the forum's 13 libraries, which include games, education, music and sound, art (both clip art and fine art), reference, utilities, miscellaneous stacks, R-rated images, and *HyperMagazines*, a kind of electronic magazine with words and pictures.

Forum members uploaded more than 300 of these stacks in the first few months the forum was online. "Our largest library is called 'miscellaneous'," Shapiro says. "HyperCard is such a personal thing that people come up with many uses that don't fit commercial software categories."

In one 30-day period, these examples were just a few of the HyperCard applications members added to the forum's libraries:

- A Japanese-English dictionary with kanji characters and digitized Japanese speech pronunciations.
- Library of children's literature that allows searching by category, author and keywords.
- Slide show of clip art arranged by subjects.
- A phone dialer.
- A version of *Space Invaders*.
- A medieval jousting game.
- Multiple listings for real estate agencies.
- HyperTunes, a music-making stack.
- A payroll calculator.
- A home inventory.
- A world map, with "buttons" to index cards of individual countries.

Still not sure about a stack that fits your needs? You'll have to join the HyperCard Forum and find one yourself.

PC MagNet Offers Forums, Utilities

by Craig Ellison

The busy signal has long plagued users of popular bulletin boards. Add to that the expense of a long-distance phone call, if the situation so requires, and you've got a frustrating experience on your hands. But all that has changed for users of *PC Magazine*'s Interactive Reader Service.

CompuServe Information Service and Ziff Communications Co., publisher of *PC Magazine*, recently joined forces to bring CompuServe and *PC Magazine* subscribers a new service—PC MagNet. "PC MagNet provides downloads of all utilities available on the Interactive Reader Service, plus much more," says Chris Barr, *PC Magazine*'s manager of PC MagNet.

"Before CompuServe and PC MagNet, we couldn't handle the volume of calls to the Interactive Reader Service. Our studies indicated thousands of busy signals were being received by callers to our New York and San Francisco computers. CompuServe's network and resources ensure that people won't get busy signals. And for many people, it will be a local call," Barr says.

PC MagNet offers five forums in addition to a wealth of utilities, to make your IBM PC-compatible more productive, and indexes to issues of *PC Magazine*. Each forum features the customary message board, libraries containing files to download, a conferencing area and announcements from the forum administrator. Well-known industry experts and *PC Magazine* editors stop by the forums to keep the discussions lively, informative and topical. As with other forums on CompuServe, membership in each is free.

PC MagNet's forums, listed below, are jointly administered by Sal Ricciardi, *PC Magazine*'s technical editor, and Ross Greenberg, a frequent contributor to *PC Magazine*.

- The Editorial Forum features discussions on hardware and software presented in *PC Magazine*, as well as First Looks and After Hours sections of *PC Magazine*. In the Viewpoints area of this forum, look for *PC Magazine* Editor-in-Chief Bill Machrone and columnists Jim Seymour, John Dvorak and Steve Manes to moderate discussions on a variety of topics.
- The Tips and Techniques Forum

Thom O'Connor

Improving PC productivity: *Barr*

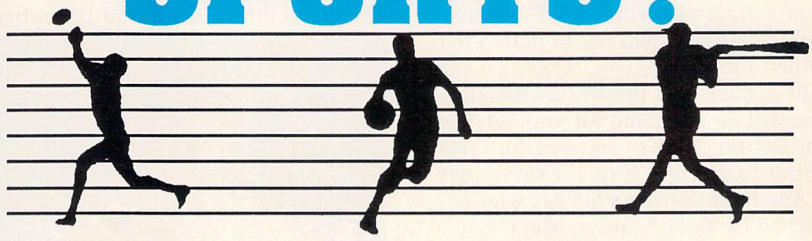
features sections dedicated to making you more productive, including User to User, Connectivity Clinic, PC Advisor and PC Tutor.

- The Utilities Forum includes Utilities and PC Lab notes. Utilities found in the libraries of the forum are uploaded from users and are not duplicates of the *PC Magazine* utilities found on the main menu. CompuServe connect-time charges, with the exception of local access charges, are waived during the uploading process.
- The Applications Forum features the Spreadsheet Clinic and the Power User columns. Here forum members can track the latest database tip or pick up a useful word processing macro program.
- The Programming Forum focuses on high-level languages and power programming. "With industry experts Charles Petzold and Ray Duncan co-moderating discussions and Robert Hummel, senior technical editor for *PC Magazine*, lending his expertise on languages, I expect a high 'signal to noise ratio.' Lots of solid information will be exchanged in this forum," Greenberg says.

PC MagNet also enables CompuServe subscribers to send electronic letters to the editor and to participate in free surveys. EasyPlex is available from within PC MagNet, too.

PC MagNet is available to all CompuServe subscribers at no additional surcharge. To access it, type GO PCMAG at most CompuServe Information Service prompts. It features the familiar menu structure and navigation commands used throughout CompuServe.

SERIOUS ABOUT
SPORTS?



GET IT ALL WITH
COMPUTER SPORTS WORLD

America's oldest and largest sports and horseracing database with over 4200 files of computerized information.

AT YOUR FINGERTIPS!
24 HOURS UP TO THE MINUTE

Scores In Progress • Weather
Transactions • Injuries • Team Logs
• Fantasy Stats •

Call now and speak to a representative for your demonstration account number and password.

1-800-321-5562 CSW® COMPUTER SPORTS WORLD

A service of The Chronicle Publishing Company, San Fransisco.

Go CSW for a sample of the services Computer Sports World provides.

GO OLI or circle 7 on the Reader Service Form.

Catch Seoul Olympics Action

CompuServe Subscribers Can Get Inside Track on Athletes, Events

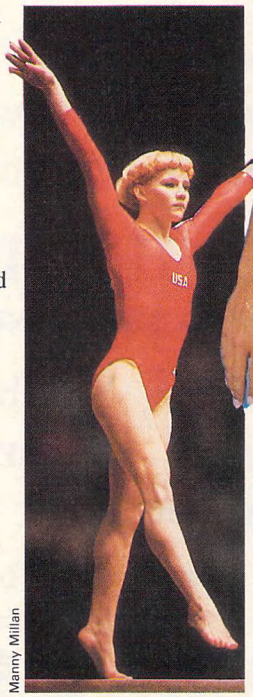
by Cathryn Conroy

The Olympic athletes have devoted much of their lives to practice, pain and competition. In September, armchair athletes on CompuServe can share in their glory.

Who will lead the Americans in Seoul? Greg Louganis, who has captured the title of the best diver in history, is once again favored to win the three-meter and platform titles in Seoul. Diver Kelly McCormick, daughter of former quadruple gold medalist Pat McCormick, will try to match her mother's record.

In gymnastics, the worldwide audience will be watching for another Mary Lou Retton, Nadia Comaneci or Olga Korbut to emerge. Experts say it may be American Kristie Phillips, who is coached by Bela Karolyi, Mary Lou's and Nadia's former coach. Still, the Soviets and Romanians will be formidable challengers.

The American swimming team faces stiff competition from the German Democratic Republic.

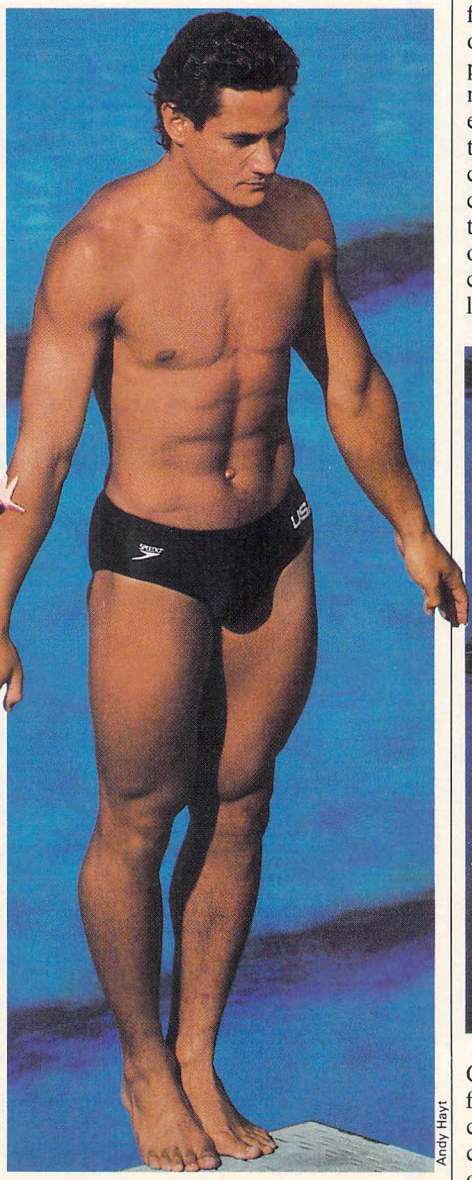


Manny Millan

Tracking the athletes' roads to Seoul is one feature of CompuServe's Olympics database, a compendium of news and historical facts. Previews of the summer games, sport by sport, are presented so you'll know who to watch for in all the Olympic sports—from archery to yachting and even the demonstration sport of Taekwondo, the martial art that originated in Korea.

Use the database to find out the exact dates and times your favorite sports events are scheduled. After the events, you can check the results section to see who won the gold, silver and bronze medals. The database of medal winners is updated daily, so you can easily track on a day-to-day basis how many medals each country or athlete is winning.

You can read the latest news reports as they originate from Seoul through the Associated Press Olympics News. Executive Option subscribers who follow just one or two sports can set up their own clipping folders to capture articles of interest. To do this, follow the menu directions in the Executive News Service and use keywords, such as OLYMPICS + BASKETBALL (or the name of the sport you are interested in tracking).

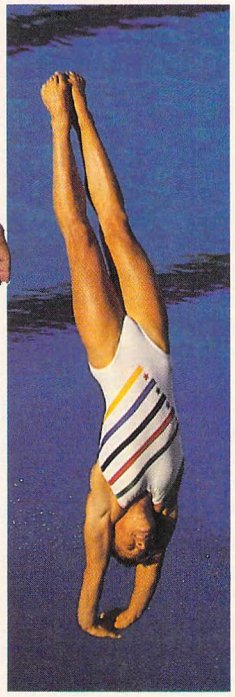


Andy Hayt

Practice makes perfect: *Olympic contenders Phillips, Louganis and McCormick*

The Olympics database is packed with historical information and trivia. Did you know, for instance, that the first ceremonial lighting of the Olympic flame in the modern Olympics was the giant torch that burned at the entrance to the 1928 Amsterdam Games? Eight years later the ceremony was developed into an overland relay for the Berlin Games. The torch is lit by a concave magnifying mirror that reflects the sun's rays at the ancient ruins of the temple of Zeus on Mount Olympus.

To track the Olympic history of your favorite sport or country, the database offers comprehensive information on previous Olympics results, with separate entries for men's and women's events and countries as well as a list of the 1984 winners and medals won by country. The database also includes the current Olympic records and cumulative medals awarded. This may be your only source for this information, especially in this depth, because it is unlikely to be published in newspapers.



The database also serves as a gateway to several forums that will be hosting special discussions of the Olympics, including the Sports Forum (GO FANS) and the Public Relations and Marketing Forum (GO PRSIG).

And, to make sure you have proper attire for the event, you can order Olympic polo shirts, sweatshirts, T-shirts, duffle bags, warm-up suits and jackets directly from the United States Olympic Training Center Gift Shop. Items can be ordered from an online or print catalog. You can visit the Olympic Gift Shop by choosing Option 7 in the Olympics database.

Go for the gold electronically by typing GO OLYMPICS.

Exacting Logic: ENS Enhances Searching

by Cathryn Conroy

The Executive News Service, with access to such major news sources as the Associated Press, *The Washington Post*, McGraw-Hill News, Reuters Financial Report and OTC NewsAlert, is a boon to those following a topic—be it business, sports or politics—with a worldwide scope. No daily newspaper can offer the extent of coverage available in ENS.

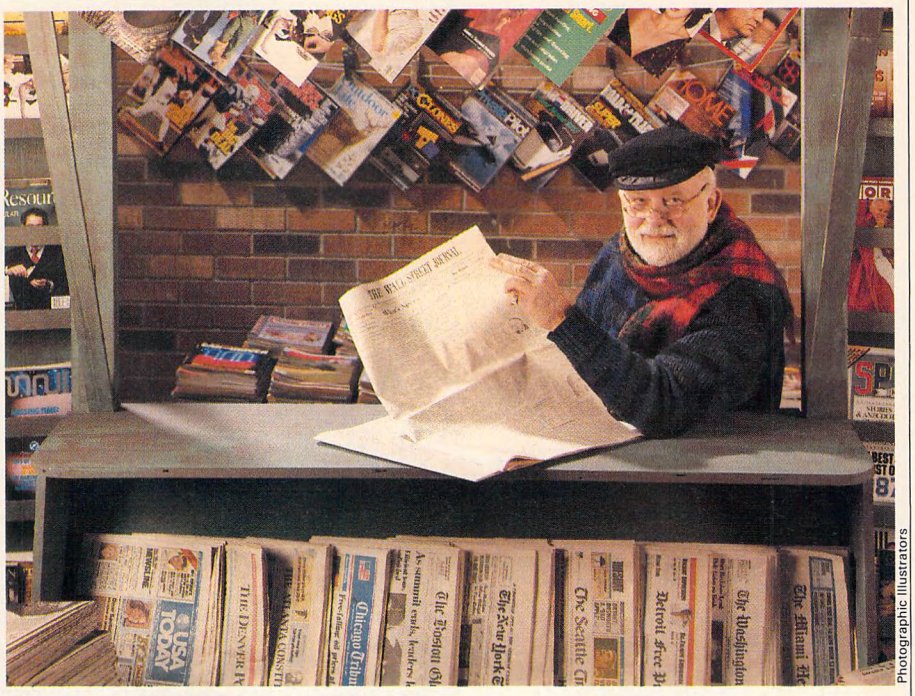
To manage this enormous amount of information, it is essential that you create a clipping folder with keywords and phrases that fully, yet succinctly, describe *exactly* what you want to collect. Creating those keywords is the art of online database searching, and ENS has made it a little easier with the debut of enhanced search criteria.

Until now, such electronic clipping folders (where news stories that meet your predefined criteria are automatically saved) were created by entering keywords that must be contained in a story, exactly as specified, in order for that story to be saved. Enhanced search criteria, which is similar to Boolean logic, allows you to go one step further in fine-tuning your keywords by telling the system alternative words to clip on or words or phrases that you do *not* want to use.

For instance, if you are a graduate of Jackson State College, you might be interested in following the news of your alma mater. By typing in the keywords JACKSON STATE COLLEGE, you miss articles that refer to the school as JACKSON STATE or JACKSON. But, in this presidential election year, typing in the keyword JACKSON will fill up your folder with articles on Jesse Jackson. With enhanced search criteria, you can specify the keywords JACKSON + STATE—JESSE. Translated, that means you want all the articles that contain the words Jackson and State, but not those that contain the word Jesse.

The symbols ENS uses for the Boolean logic construction are + for AND, — for NOT and | or ¦ for OR. The phrase "Boolean logic" may sound sophisticated and complicated, but it simply means using AND, OR or NOT in your keyword definition. Instead of being complex, it simplifies matters by allowing you to more accurately describe what you want.

Each ENS clipping folder can contain up to seven keyphrases, each of which can be as long as 50 characters. When your keywords and phrases work well, you save online time because you won't be wading through articles that you're not interested in. It makes good sense (and cents) to plan your keyword search strategy offline.



Photographic Illustrators

Manage essential information easily: *Executive News Service*

Let's try some more examples. The head of the data processing department of a Fortune 500 firm wants to protect his firm's computer systems from "viruses" and intruders. To stay on top of the latest computer security news, he develops this keyword strategy for his ENS folder:

One keyword combination is COMPUT* + (SECUR* | CRIME* | PRIVACY). Another keyword combination is COMPUT* + (VIRUS* – DISEASE).

This means he wants stories on computers (by using the * after the opening letters of the word, he will also receive articles with such words as COMPUTE and COMPUTING) that also include information on security, OR crime OR privacy. In addition, he has asked for stories on computers AND viruses but NOT those that contain the word disease. By doing this, he will avoid medical stories that have nothing to do with computer viruses.

A University of Iowa football or basketball fan who lives in Silicon Valley uses ENS to keep in touch with the Hawkeyes. Under the old system he had to create several keyword phrases, including UNIVERSITY + IOWA, IOWA + HAWKEYES, IOWA + FOOTBALL and IOWA + BASKETBALL, to be sure he got what he wanted.

Under the enhanced search criteria, he can condense it into one phrase that better describes what he wants:

IOWA + (HAWKEYES | FOOTBALL | BASKETBALL)

With this keyphrase he has instructed ENS to clip those stories on the University of Iowa that mention the Hawkeyes OR football OR basketball.

Developing Boolean logic keywords that work is not difficult if you think about exactly what you want from the search. To help you get started, make a list of three main concepts. After each one, write down one or two descriptive words that further define that concept using AND, OR and parentheses to link the words together. Then study the results and decide if you need to add an exclusionary word or phrase.

If you decide after a few days or weeks that you need to edit your keywords because they are too broad or too narrow, you can do so through Option 4 of the main ENS menu ("Create/Change/Delete a Folder").

For information, type GO ENS. The Executive News Service is available for Executive Option subscribers only and carries a surcharge of $15 an hour (or 25 cents a minute).

BASIC 'Star Trek' and Virus Checks Online

The libraries in CompuServe's forums are filled with thousands of programs and textfiles. The following are a few of the files uploaded to the forum libraries in recent months. For a more up-to-date list of uploads, check the "Uploads" columns in *Online Today Daily Edition* by typing GO OLT-3700 at any CompuServe prompt. New columns are added weekly.

AMIGA FORUM
(GO AMIGAFORUM)

Virus Checker—ViewBoot, a program for the Amiga that enables you to view the boot block in ASCII to check for viruses. File VWBO11.ARC in Library 9.

APPLE II/III FORUM
(GO APPLETWO)

Puzzler—A crossword puzzle program written in Applesoft BASIC. File CROSSW.FP in Library 12. See also CROSSW.TXT and PUZZLE.TXT in the same library.

ASTRONOMY FORUM
(GO ASTROFORUM)

Mac Tracker—Satellite tracking programs for the Macintosh. File MACSAT.SIT is for a 512K Mac, Mac Plus, SE or Mac 2. File MSAT2.SIT is for the Mac 2 only. Both files are in Library 7.

CD-ROM FORUM
(GO CDROM)

Disk List—A list of more than 300 CD-ROM titles, the name of the company that produced the disk, the price (if known), update rate, system type and volume format. File TITLES.TXT in Library 3.

COLOR COMPUTER FORUM
(GO COCO)

Memory Searcher—BASIC program to search the CoCo III's memory. RGB monitor required. File SEARCH.BAS in Library 11.

COMMODORE MUSIC, GRAPHICS AND GAMES FORUM
(GO CBMART)

Sound Machine—The "Enhanced Sidplayer" for the Commodore 64. Files ENHSID.IMG, ENHSID.BIN andd ENHSID.DOC in Library 10.

CONSUMER HEALTH FORUM
(GO GOODHEALTH)

AIDS Conference—Transcript of the conference on AIDS held on April 10, 1988. File AIDSCO.101 in Library 7.

CROSSTALK FORUM
(GO XTALK)

New Program—Complete information and details about Remote2, Crosstalk Communications' new software product for IBM PCs and compatibles. File R2.TXT in Library 8.

DISABILITIES FORUM
(GO DISABILITIES)

Captioned Movies—The latest list of more than 1,000 movies captioned by the National Captioning Institute. File CAPMOV.LST in Library 3.

EDUCATION FORUM
(GO EDFORUM)

Software for Kids—Transcript of a conference on computer software for young children. File HISCOP.CO in Library 3.

GENEALOGY FORUM
(GO ROOTS)

Genealogy Stack—Hyper-Tree, a genealogy program for the Macintosh HyperCard. File HYPRTR.STK in Library 3.

IBM NEW USERS FORUM
(GO IBMNEW)

World Game—*Strength of Nations*, a game played to seek world domination based on your ability to administer resources. File NATION.ARC in Library 6.

IBM SOFTWARE FORUM
(GO IBMSW)

Screen Editor—A fast and easy full-screen editor by John D. Fox for IBM PCs and compatibles. Includes word wrap, paragraph reformat, find and replace, delete word, delete line, cut, paste and more. File EDIT.ARC in Library 2.

INVESTORS' FORUM
(GO INVFORUM)

Stock Charter—A new version of $tokTrax, a shareware stock-charting program that includes a variety of user-selectable graphic overlays, stock symbol/company name lookup and sort capability, and a user interface. File STKTRK.ARC in Library 1.

MAUG MAC PRO FORUM
(GO MACPRO)

Infection Checker—Ferret, a program that searches and removes the "Scores" virus from a selected drive. When an infected file is found, Ferret shows the date it was probably infected and lets you repair or skip the file. File FERRET.SIT in Library 4.

MAUG HYPERFORUM
(GO APPHYPER)

Music for the Mac— HyperTunes, a complete music-making stack for HyperCard. File HYPERT.SIT in Library 4.

MAUG MAC FUN FORUM
(GO MACFUN)

Kid's Stuff—A kid's game to uncover hidden pictures. File HIDDEN.SIT in Library 3.

AAMSI MEDICAL FORUM
(GO MEDSIG)

Computer/Medical Events—A regularly updated calendar of events for meetings conferences, workshops and tutorials related to health care and computing. File CALEND in Library 2.

MODEL 100 FORUM
(GO M100SIG)

Modem Speedup—A Model 100-specific program to speed up the internal modem of 450 baud for use with CompuServe. File FSTMDM.100 in Library 3.

GREAT OUTDOORS FORUM
(GO OUTDOORS)

RV Dictionary—A dictionary of camping terms for those with recreational vehicles. File DEFIN1.TXT in Library 10.

PR AND MARKETING FORUM
(GO PRSIG)

Desktop Conference—Transcript of a conference with Don Picard, who discusses new developments in desktop publishing. File PICARD.407 in Library 3.

SCIENCE FICTION AND FANTASY FORUM
(GO SCIFI)

BASIC Star Trek—A BASIC program for the IBM and compatibles that enables you to see information about "Star Trek: The Next Generation" including the names of the actors and the shows. File STTNG in Library 2.

SCUBA FORUM
(GO DIVING)

Log Your Dives—Diver's Log, a program that will help you keep track of your dives. Calculations are done for you from the depth, time and surface interval. File DIVLOG.ARC in Library 8.

SPACE FORUM
(GO SPACEFORUM)

Soviet Traffic—A file that describes frequencies and times with Soviet RTTY traffic. Some are related to ships that will participate in the shuttle launch. File VESSEL.SOV in Library 2.

TEXAS INSTRUMENTS FORUM
(GO TIFORUM)

Text Editor—QDE, an 80-column text editor for native MS-DOS. File QDE in Library 12.

David Peyton co-authored How to Get the Most Out of CompuServe. *His CompuServe User ID number is 76703,244.*

Ask Customer Service

Q: How do I get an account with CompuServe for my company?

A: The corporate billing option may be requested by any US or Canadian business with a qualifying credit history. To obtain an application, call 1-800-848-8199 (or 614-457-0802 in Ohio or Canada) and request that the information be mailed to your company address. You can also request an application online by typing GO FEEDBACK at any system prompt. A letter explaining the corporate account will be enclosed with the application.

Q: How much does a corporate account cost?

A: The set-up charge is $44.95, which includes a CompuServe User ID number, password, Users Guide, $25 of free connect time and the Executive Option. Your first invoice will include this initial application fee. Connect rates are the same as for a personal account: $6 per hour for 300 baud and $12.50 per hour for 1200 and 2400 baud, plus applicable communications surcharges. There is a $10 monthly minimum per User ID number.

Q: Can more than one user access CompuServe with the same User ID number?

A: One of the advantages of a corporate account is the capability of having more than one User ID number. There is a $19.95 set-up charge for each User ID number (which includes a free CompuServe Users Guide). A monthly invoice will include charges for each of your company's User ID numbers.

Q: Can I convert my current account into a corporate account?

A: Yes. You can request a business account application by contacting Customer Service. There is a $10 conversion charge.

Q: How do I add another employee to my corporate account?

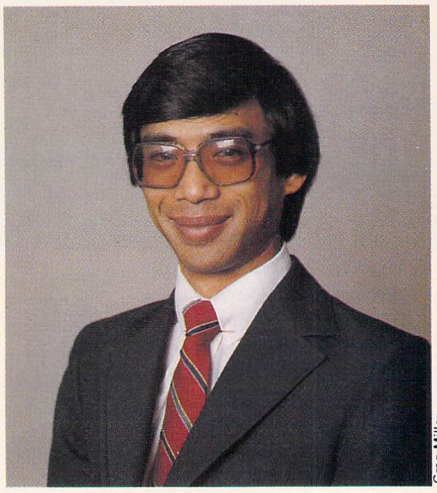
A: To obtain a new User ID number, complete the New User Worksheet that you received with the initial corporate account application. You can request additional New User Worksheets through Feedback or by calling Customer Service.

Tip of the Month

Jim Pascua is a Customer Service representative Monday through Friday, 7:30 a.m. to 4:30 p.m. "I prefer working days so my wife, Cheryl, and I can spend evenings and weekends with our two sons, Christopher and Michael," says Jim.

Jim is also finishing a bachelor's degree in business administration at Franklin University in Columbus, Ohio. CompuServe's MicroSearch and SUPERSITE have helped Jim pursue his education, but his favorite online areas are MicroQuote, the IBM forums and *MegaWars III*.

"CompuServe offers more than 1,000 products and services. Subscribers can save the time in locating them if they ask Customer Service," Jim says. Feedback (GO FEEDBACK) and other online Customer Service areas provide help in finding the services. Jim suggests using Feedback when possible. "It's free of connect-time charges, and you get an accurate response through EasyPlex within 48 hours."



Greg Miller

Online Feedback is free: *Jim*

Gift of Time

Online Today offers subscribers the chance to win 10 hours of standard service connect time (a $60 value) by writing a 200-word essay on how they use CompuServe's Information Service.

The essay should be typed double-spaced and sent to *Online Today,* CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or via an EasyPlex message to 70003,3246. Please include your full name, address and User ID number.

The winning essay will be published in *Online Today.*

CompuServe Business Information Invaluable

As a business writer for a large regional newspaper, I find CompuServe services invaluable in my career as well as my personal life.

I often need fast access to information about both large and small companies. Without CompuServe, this would entail hours of scanning financial reports—often out of date—in a library. However, with Disclosure II, I can scan financial information, earnings, major shareholders, ratios and revenues of thousands of firms in minutes—saving myself many long-distance calls to the Securities and Exchange Commission.

Investors and reporters can also scan company valuations through the Institutional Brokers Estimate System (GO IBES) for up-to-date investor information. Analysts from Standard & Poor's (GO S&P) are online to give information on hundreds of companies.

The business information on CompuServe has saved me hundreds of hours in research time and that helps me get ahead.

James Derk
Evansville, Ind.

Read CompuServe News

Online Today Daily Edition covers the online community. Whether it's a forum conference announcement, a special promotion or a new product introduction, you can read all about it in the *Daily Edition*. To access news about the CompuServe community, type GO OLT-50 at any CompuServe Information Service prompt.

***COMPUSERVE THIS WEEK**	**OLT-50**
About Update	**OLT-60**
Community News	**OLT-80**
Conference Schedules	**OLT-120**
Letters to Editor	**OLT-30**
Online Today Guide	**OLT-351**
Previous Weeks' What's News	**OLT-270**
Uploads Updates	**OLT-3700**
What's New	**OLT-70**

Win a Cruise to Bermuda at Shoppers Advantage

Shoppers Advantage invites all subscribers to a Bermuda Party. Come to the party during August and you and a friend could be boarding the SS Merikanis in New York City on Sept. 17, bound for Bermuda on a luxury cruise. For contest details, GO SAC.

Direct Micro's Diskette Disaster Essay Contest

Here's your chance to win a $50 online gift certificate, redeemable at Direct Micro's Mall store. Simply submit an essay via EasyPlex telling about your worst diskette disaster. Direct Micro will publish the winning essay online and award the grand prize. All contestants will receive electronic coupons good toward their next online purchases. GO DM

Win a $25 Gift Certificate or an AT&T Computer Desk Clock

Everyone who correctly completes the monthly AT&T Chain Contest wins a prize. The contest, designed to test your knowledge of system integration, changes every month. The first person to answer correctly wins the $25 gift certificate, and everyone submitting the right solution wins a clock. GO ATT

Florida Fruit Shippers' "Fruit Facts and Fallacies"

Take Florida Fruit Shippers short True-False Fruit Quiz for your chance to win one of three Caribbean Pineapple Gift Packs. If you answer all five questions correctly, you'll be entered in a drawing for one of the three pineapple packs. GO FFS

SUMMER GAMES

Texas Feast at Simon David

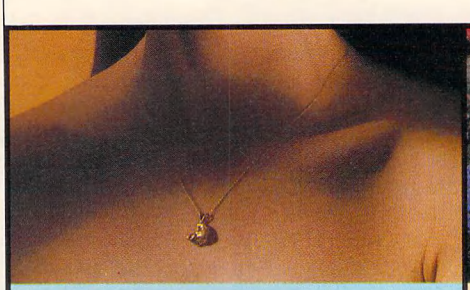
Make any purchase at Simon David during August and you'll automatically be entered in a drawing for a Texas Cookout Round-up Basket. This basket is filled with goodies, including ribeye steaks, mesquite-smoked barbecue sauce and Mariano's Margarita Mix. For your chance to win this fabulous feast, GO SIM.

Bargain Holidays' "Miami Nice Sweepstakes" Planned

At Bargain Holidays, one lucky subscriber will win an eight-day, seven-night stay at The Shelborne Beach Hotel. The hotel, in the heart of Miami's art deco district, features restaurants, clubs and a pool. For your chance to win this holiday, GO BH.

TSR's Mystery Treasure Hunt

Visit TSR Games Shoppe and embark on a Mystery Treasure Hunt. The first subscriber to solve the mystery wins the grand prize, a set of three top-secret case books that includes *The Final Bug* and *Gnomes 100, Dragons 0*. Ten first-prize winners will receive a set of six Adventure Dragon dice. Everyone who correctly cracks the code will be issued a $2 credit slip off any purchase of $20 or more. To start sleuthing, GO TSR.



Ivory Cache's Gold Rush

Visit Ivory Cache during August and you could win a genuine natural Alaskan gold nugget that is buried in the Ivory Cache database. Be the first to find it, and the gold nugget is yours. All subscribers who strike gold will be rewarded with a discount coupon, redeemable online. GO IV

Walter Knoll's Bulb Bonanza

Three electronic bulbs are buried in Walter Knoll's database. Each of the first three subscribers to find them will win a specialty collection of bulbs. To start digging, GO WK.

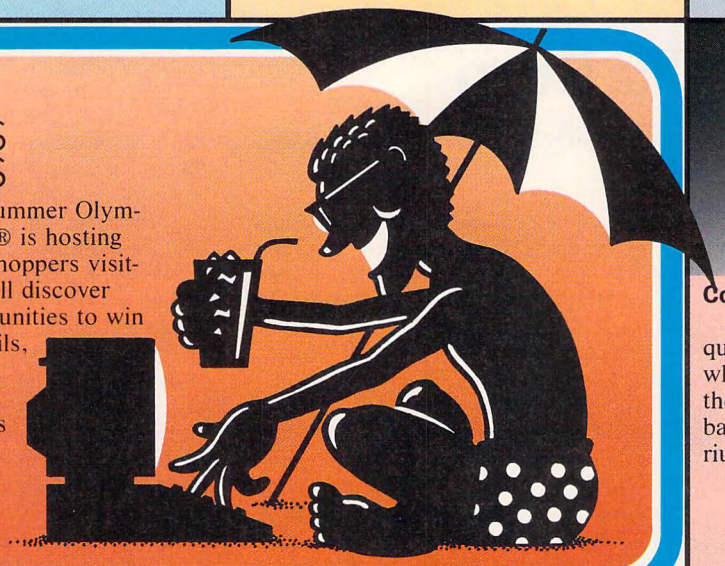
Calling All August Babies

If your birthday is in August, be sure to enter Desserts Direct's Birthday Cake of the Month Contest. Every month, subscribers born in that month are invited to enter their names, addresses and birthdates. One winner will be selected at random and awarded the cake of his or her choice. GO DS

PLAY THE MALL'S SUMMER GAMES

In celebration of the Summer Olympics, The Electronic Mall® is hosting its own summer games. Shoppers visiting The Mall in August will discover more than a dozen opportunities to win prizes. For complete details, GO SG.

Here's a snapshot of the games planned for this August.



Count Those Coffee Beans

How many coffee beans are in the quart jar? Take a guess! The subscriber who comes closest, without exceeding the amount, wins a special gourmet gift basket, compliments of Coffee Emporium. To submit your entry, GO COF.

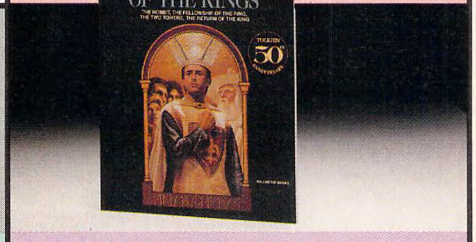
Tele-Charge's Theatre Buff Brain Buster Quiz

Tele-Charge gives you the chance to test your stage savvy every month with a new Theatre Buff Brain Buster Quiz. Be one of the first five subscribers to correctly answer three trivia questions and win a prize. GO TC

R+R DIRECT™

R+R Direct's Scavenger Hunt

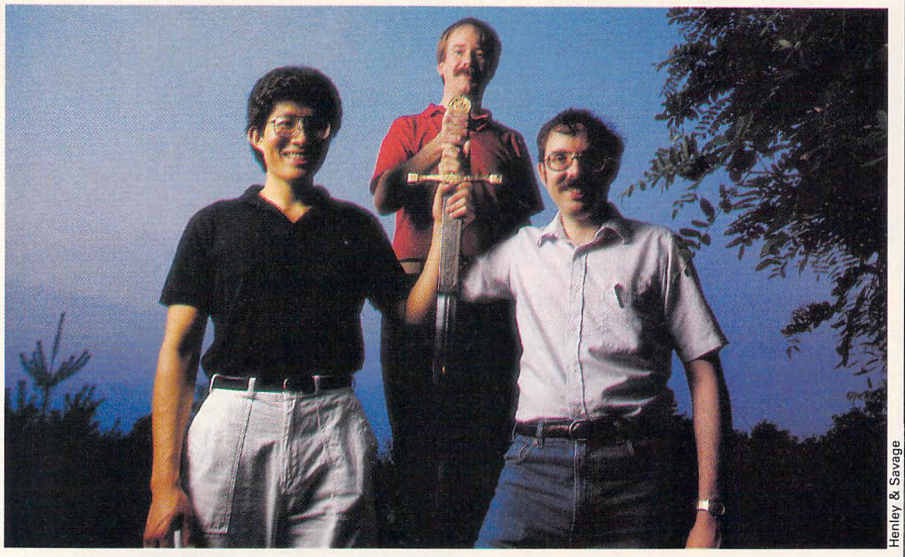
Be the first subscriber to locate five items in the R+R Direct database and win a $50 gift certificate, redeemable online. For details on the scavenger hunt, GO RD.



Ballantine's Tolkien Trivia Test

In honor of the 50th Anniversary of *The Lord of the Rings*, Ballantine Books is hosting a Tolkien Trivia Test. The first 50 subscribers to correctly answer all three questions will receive a special 50th anniversary Tolkien poster. GO BAL

Ron Lieser



Henley & Savage

Entertaining *Island of Kesmai* explorers: *Shih, Taylor, and Flinn*

Son of Kesmai is Born

Stronger Monsters, Richer Treasures Challenge Advanced Players

by Holly G. Miller

The not-so-friendly warriors and demons of Kesmai deserve a generous pat on the scales. Since the *Island of Kesmai* (GO ISLAND) surfaced online in December 1985, its inhabitants have kept CompuServe game players entertained with battles, spells, magic, treasures and puzzles.

Traveling solo or in groups, players have directed their alter egos through adventures while gathering loot, points and clout along the way. Conferences have been conducted, an escort service has been launched to squire newcomers around alien turf, and offline socials have brought players face to face to kibitz on game strategy. Then the inevitable occurred.

"Some of the players simply outgrew the island," explains Ben Shih, a scenario designer for Kesmai Corp. A sequel seemed in order, and Shih accepted the challenge of creating it.

"We're always expanding," says John Taylor, who developed the *Island of Kesmai* basic game with his partner, Kelton Flinn, during their graduate school days at the University of Virginia. "If we like a new idea and it makes sense, we do it. The island is continually evolving."

The advanced game is the latest result of this ongoing evolution. It can be accessed only through a portal from the basic game, and once players decide to "graduate" from basic to advanced, they can never go back. The familiar lands of Kesmai and Leng are left behind, and the challenges of Torii and Annwn (pronounced A-noon) stretch ahead.

"In its own way, it's a new game but it's built on the old foundation," says Shih. "I wouldn't say it's better, just different. There are more powerful weapons, tougher monsters and a variety of treasures. For veteran players, it's like going back to when the island was new."

Since coming online, the advanced game has attracted about 30 percent of the island's seasoned players. Players who wandered away from the basic game after mastering its challenges have been lured back. A new cast of goblins, trolls and giants greets them on their arrival. While the previous point limit was about 110, now the number has burgeoned to 400.

Because of the potential strength players can acquire in the advanced game, they are not allowed to slip back to the original part of the island, where such power would wreak havoc among the more vulnerable creatures of basic Kesmai.

Although a trip to the island may leave a newcomer scratching his or her head in bewilderment, much online help is available to quickly acclimate the visitor to veteran status. A manual can be purchased, and background information on the island's four parcels of land (Kesmai, Leng, Annwn and Torii) is stored in the libraries of the Multi-Player Games Forum (GO MULTIGAMES). Library 6 is devoted to the advanced game; Library 7 covers the basic game. Other files provide transcripts of conferences about the island, a series of maps to help players navigate the mysterious lands, a list of the beasts that may be encountered and descriptions of how the island would look if it existed.

"We have a staff of four teachers who volunteer to help new players," says Shih. "This kind of camaraderie is typical of the island. It's what sets the game apart from other games. A person can play casually or seriously. He or she can relax and take out frustrations on a few goblins or unwind by joining other players in hunting bear and griffin. But to become a superstar, a 'megacharacter,' requires time."

The player decides how long to stay in the basic game before opting for the one-way plunge to the advanced game. Shih suggests that players consider the move either when they become bored with the basic game or when they fully understand how spells work, how to avoid running into walls and how to gather treasure. These skills will be put to the test in the advanced game where puzzles and quests abound.

Prior to making the transition, players can solicit tips by posting messages on the Kesmai section of the message board in the Multi-Player Games Forum. Sitting in on a Sunday evening conference also is advisable because Shih is a frequent guest. What better way is there to learn a game than by visiting with its creator?

"We spend hours a day on the service," says Taylor. "We talk with the players, ask them questions, listen to them, hold their hands and give advice. They can find us in the forum and on the island."

As supportive as the island developers are, the players themselves are the best source of help, according to Shih.

"Because I know how everything works, I tend to see things differently," he says. "When our players write about the island for the forum libraries, you see it through their eyes. All of the magic and mystery is intact."

Holly G. Miller, a free-lance writer and college professor based in Anderson, Ind., is a contributing editor of The Saturday Evening Post *and* Indianapolis *magazine. Her CompuServe User ID number is 70007,2345.*

Role-playing Comrades on a Fantasy Quest

by Cathryn Conroy

Have you ever wondered what it would be like to be someone else? There is a way—short of becoming an actor—that you can become someone—or even something—else, for months or even years at a time.

The Role-playing Games Forum (GO RPGAMES) sponsors role-playing games (called RPGs by those in the know) that are played on the forum's message board and in the real-time conference (CON) area. Shrouded in fantasy, adventure and mystery, the games are structured around roles assumed by each player and the specific moves each player makes—much like a cooperative storytelling adventure. Although the games tend to follow the basic rules of commercial games, such as TSR's *Advanced Dungeons and Dragons*, the gamemasters who direct the play create their own unique plots and scenarios.

The gamemaster begins a new game with an introductory file that lays down the groundwork and invites forum members to join as player characters. He or she selects the game rules to be used, develops a scenario, uploads informative files to the libraries and presents the ongoing action in a series of summary moves.

Gamemaster Mike Naylor says that role-playing games allow him to tell a story in a unique way. "I can create a complex, realistic world in which characters with their own personalities, desires and problems can interact, and a history can grow and evolve. But the story is not a script." As the game goes on, various subplots may arise, depending on the actions of individual characters.

"Gamemasters find their ideas almost anywhere—from a sword-and-sorcery novel, a history book or a biography," explains Patricia Fitzgibbons, forum administrator. "The idea for my own game, *The Crown of Connacht*, stemmed from a biography of the mythical Queen Maeve of ancient Ireland."

The players' quest was to recover Queen Maeve's magical crown, which had been stolen by an evil druid. The group had to unravel riddles, travel the countryside, and eventually find and defeat the druid. When the crown was recovered and returned triumphantly to Queen Maeve, that particular quest ended.

"What separates this from other games is that you don't just end the game after you get three outs. The adventure continues the next time you decide to play," says player Joseph Fishkin.

Tom Carney

Role-playing actions affect the outcome: *Mike and Janet Naylor*

Usually six players make up a game. Their roles may conform to the fantasy standard of fighter, cleric, mage and thief or they could be anything from a superhero comic book-type character to a pilot of an intergalactic space cruiser. "The quality of the game depends in a large measure on the abilities of the different players to be believable, to act as another would act in a certain situation," says Sara Groves, assistant forum administrator.

Player Harishanker Ramachandran says that when he takes on a new character role he thinks about appropriate stereotypes, revolutionary ideas and goals for the character. "Then you act for your character, adding in the fact that there are others in the game who have different goals and perspectives. With the right mix, you experience the equivalent of a roller coaster ride," he explains.

Scot Loomis, another RPG aficionado, plays a dwarf in one of the games. He has been so convincing in his role that at a recent face-to-face gathering of the players, the others were shocked to see that he is 6 foot 2 inches tall.

Role playing allows people to experiment with new and different persona, allowing, for instance, a shy individual to play an aggressive role. "Role playing shows you how different people look at the world. To succeed, you must understand and appreciate other points of view," says Naylor.

Games generally continue for several months, although Fitzgibbons says there have been some role-playing games in the forum that have run for years. A few have been played in their entirety in a day.

The thrills and challenges of the games are found in the opportunity to participate actively. "You *are* a character in the story, and your actions affect the final outcome," says player Janet Naylor.

"There's something particularly intriguing about a group of geographically distant people, most of whom have never met, joining together as comrades on a dangerous quest in a fantasy world. Most of our players and gamemasters are adults who enjoy exercising their wits and social skills in the context of an imagined adventure," says Fitzgibbons.

A current schedule of role-playing games is listed in the GAMES.LST file in the forum library.

Cathryn Conroy, a contributing editor of Online Today *is based in Gaithersburg, Md. Her CompuServe User ID number is 70007,417.*

Online Conferencing Provides Convenient Front-row Seating

by Terri Stone

Ever dream of stepping inside the world of rock 'n' roll? Or perhaps your fantasy takes you inside a prominent US space program debate, or into a major corporate boardroom where an intriguing new high-tech product is about to make its first appearance.

CompuServe's Electronic Convention Center has been created to turn these—and many other—visions into realities. The center takes you inside other "worlds" by permitting up to 300 users to be online simultaneously, ensuring that all have front-row seating for high-demand guests. Even better, many of the conferences invite—and encourage—audience participation.

"I love this whole thing," says Les Tracy, RockNet Forum's administrator, who recently moderated a live online rap session with the Beach Boys. "The Beach Boys got a kick out of it. In fact, everyone who's done a conference—Barry Manilow, Foreigner's Lou Gramm and many others—has been impressed. I'm always putting out 'feelers' to see which rock celebrities are interested."

Like CompuServe's forums, the Electronic Convention Center gathers people with common interests. Unique to the center, however, is the ability to accommodate the increased participation often created when popular people and subjects are featured. For instance, a senatorial debate, a discussion of AIDS, or a high-tech product announcement can interest a diverse and sizable audience.

To check out the Electronic Convention Center for yourself, type GO CONVENTION at any information service prompt. Select the "List Conferences/Make Reservations" category and you can easily scan the essentials: speakers, dates, times, expected conference length, whether reservations are required and if additional fees apply. All conferences also are announced online 30 minutes before they begin.

Be sure to notice whether the sessions are labeled Roundtable, Moderated, Lecture or Invitation. This signifies to what extent you may participate in the discussion. Roundtable discussions encourage open, spontaneous participation; moderated sessions permit questions when designated by the moderator; and lectures are "guest and moderator only" speaking. Invitation permits entry only to those users on the convention center manager's invitation list.

Moderated conferences seem to be most popular with CompuServe's forum administrators. In such a conference, the speaker offers opening remarks and, when requested, the audience may ask questions. Typically, the moderator receives the questions and relays them one by one to the speaker.

An example was the "Apple World" conference, which featured Apple CEO John Sculley making a corporate product announcement. This session holds the record for largest attendance: 280 people logged on simultaneously to catch the news.

"This was a daytime conference, which is unusual," explains Tim Barker, CompuServe product manager for the Electronic Convention Center. "Most are held in the late evening, 9 or 10 p.m. EDT, to involve the West Coast." Conferences typically last one or two hours, he says.

Neil Shapiro, administrator for the Apple and Macintosh User Forums, says his experience in amateur radio helped bring about these moderated conferences.

"Before I was into telecommunications, I was an amateur radio operator. I was on radio teletype and used to be on various networks," recalls Shapiro. "It was a lot like a conference—it holds many people talking on one frequency, and they can't all talk at the same time or they interfere with one another.

"I applied some of the radio techniques to telecommunications. In radio, there's a net control; online I call this person a moderator," says Shapiro.

Shapiro's conference tallies rate another talk by Sculley as an attendance stand-out. "Sculley had recently completed his book, *Odyssey*, and was discussing it online. More than 400 attended during the evening, though never more than 250 simultaneously. People were free to come and go as they pleased," says Shapiro.

Sculley directed this talk to the Boston Computer Society and to online attendees, which presented an interesting challenge. His director of technology typed in the speech and responses as Sculley spoke and fielded questions from both audiences.

Through "interactive TV," the Electronic Convention Center also has been the focus of a unique joint venture, linking CompuServe subscribers, live PBS-TV and the intrigue of science.

Explains Dick DeLoach, administrator of the Space Forum, "The producer of PBS' 'Science Fiction, Science Fact' program asked me to help merge a live convention center conference with a likewise live TV panel discussion on the impact of science fiction on science fact, and vice versa."

As a distinguished panel of scientists and authors discussed the topic on local live PBS-TV, CompuServe subscribers interacted by posing questions, which scrolled across the bottom of the television screen. DeLoach is featuring two additional local "interactive TV" segments—in July and November—and says he is focusing on integrating voice synthesis to replace videotex screen scrolling.

"And downstream," he predicts, "we hope to further exploit the computer's strengths by developing ways for online comments to be entered by keyword so that thousands of simultaneous remarks can be made online."

One new and exciting feature already available in the Electronic Convention Center is a special voting capability. Moderators simply type /VOTE and the audience members are invited to voice their opinions. The /VOTE mode tabulates all responses for 30 seconds.

So why not sit back, grab your favorite drink and relax? GO CONVENTION and boost your brainpower from the comfort of your home.

Terri Stone is a free-lance writer based in Columbus, Ohio. Her CompuServe User ID number is 76004,1643.

Need to Keep Up with the Computer and Information Industries?

We publish all the computer industry news every day in *Online Today Daily Edition*. GO OLT-90 from any prompt on the CompuServe Information Service.

ONLINE TODAY

Tracing the Family Tree

by Kim Walker Bowman

It is not as easy to pull up the roots of our past as it is those of a flower—the digging takes time, patience, perseverance and, most important, an irrepressible desire to know. Uncovering the lives of our ancestors requires the study of birth and marriage certificates, library files, government documents, family correspondences and more.

Several dedicated history searchers presently digging family roots are computer users who face their fact-finding missions by using the Directory of CompuServe Subscribers, along with a variety of genealogical programs and available bulletin boards. Now they have the added advantage of CompuServe's new Genealogy Forum (GO ROOTS).

The forum offers textfiles equipped with appropriate information on starting or continuing a family search. It also has shareware programs to help trace birthdates, baptismal records and marriages.

"I don't call genealogy just the search for names and birthdates," says Dick Eastman, the Genealogy Forum administrator. "It's tracking your ancestors and being interested in the way people have lived."

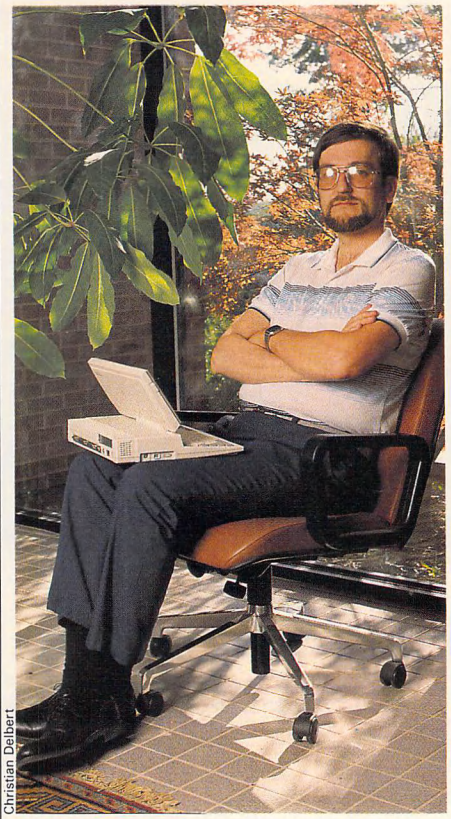
The Genealogy Forum contains a message board, forum libraries, a surname exchange and a member directory.

The message board is subdivided into 14 areas, and messages can be posted in five geographic categories where subscribers are most likely to search.

The member directory is an interactive database where users register their names and list the surnames, geographic regions and ethnic areas they are interested in or knowledgeable about. If, for example, someone is searching for the name "Harmon" and types that name in, whoever else is working with that name will be listed along with his or her CompuServe User ID number. With the help of this directory, people can swap information via EasyPlex.

The surname exchange, Option 11 on the message board, complements the member directory by providing an area where genealogists can trade information about names.

A new program available in the forum library is The Family Edge by Carl York. "It's a combination record-keeping and tracking program that helps keep genealogists organized," Eastman says. "We have an Elizabethan novelist online who uses the program to keep track of her characters—historical people whom she has fictionalized." York is often online, coaching subscribers in how to use the program.



Christian Delbert

Accessing ancestry: *Eastman*

Like many researchers, Eastman was inspired to investigate his family history in an old family document—his grandmother's Bible, printed in 1828 and inscribed in his grandmother's handwriting with everything she knew about the family. "The Bible drove me to get started," Eastman says of his ancestral search. "Two-thirds of what we're trying to do with the forum is to help the 'driven' newcomer."

Many genealogists get started by studying the history of their last names, along with names with similar spellings. Local libraries, old newspapers, history classes, passenger lists, naturalization papers, pension and service records, and recollections of older family members or close family friends are good starting points.

CompuServe subscriber Nelson Van Wie says the Directory of CompuServe Subscribers provided him with yet another resource in looking up his unusual surname. While he didn't have any luck finding exact spellings, a few spelling variants provided him with several names of interest.

Van Wie, through EasyPlex, explained his quest to individuals with similar names. One correspondent, also a genealogy searcher, had come across Van Wie's name in his own search.

Popular programs and methods used by genealogists with computers include Family Tree by Emily Brown, Family Roots by Quinsept and A Personal Ancestral File marketed by the Mormon Church.

John B. Trevor Jr., president of the New York Genealogical and Biographical Society, has written a program called Recording Your Ancestry, which can be downloaded from CompuServe's Good Earth Forum (GO GOODEARTH) in PC-DOS form; disks in Kaypro II CP/M form are listed in Scroll and can be purchased. With the help of this program, Trevor has recorded his family history and collected a substantial amount of materials. Over the years, he has used library facilities, written to various government and state agencies for military records, reviewed the records of various patriotic societies and questioned elderly relatives.

"Once you start on a serious genealogy program, snippets of data start pouring in from unexpected and unknown quarters," Trevor says. "Somehow word gets around and people let you know all sorts of things." Trevor says that researchers should be careful to preserve all data, even contradictory and doubtful material, until it is finally disproved.

Dave Spiceland, a doctorate student at the University of Tennessee, says the best way to research ancestral records online is by building several databases. Using Profile 4, he maintains information on individuals, burial sites and courthouse records. "This allows me to sort, search and print records that are organized and should remain accurate," he says. "This causes trouble when I change records, though, so I find planning ahead is essential."

Eastman has some forecasts for the Genealogy Forum: "I expect to see more minority genealogy," he says. "And there is talk of a lot more computerized databases. The more people we get involved, the more we attract. We can pool our knowledge."

Kim Walker Bowman is a free-lance writer based in Columbus, Ohio.

North Island: *Sheep outnumber the people*

Explore a Country of Contrasts

Snow Ski on Volcanoes and Soak in Hot Springs in New Zealand

by Jonathan Ganz

From the snow-covered volcanoes to the boiling waters along the deep blue ocean, there is no land that offers a more diverse vacation getaway than New Zealand.

Auckland, the largest city, has 25 percent of New Zealand's population of 4 million. As in most large cities, you can find cosmopolitan shops and services there. But while it's nice and worth seeing, the rest of the North Island contains the true flavor of this beautiful country where the sheep outnumber the people and where the first inhabitants settled centuries ago.

Where to Go

If the weather is agreeable (summer is December, January and February), a visit to the South Island is recommended. There are several interesting features, including glaciers, snow skiing and some of the most breathtaking scenery in the Pacific. The travel information services on CompuServe (GO TRAVEL) are helpful for planning your itinerary, but there are still a few places worth seeing that are not commonly visited by tourists.

One such place is Chateau Tongariro, located to the southwest of the vast central Lake Taupo. Chateau Tongariro offers skiing at bargain prices. You ski on an active volcano, which constantly reminds visitors of the fact by blowing off steam and ash at regular intervals.

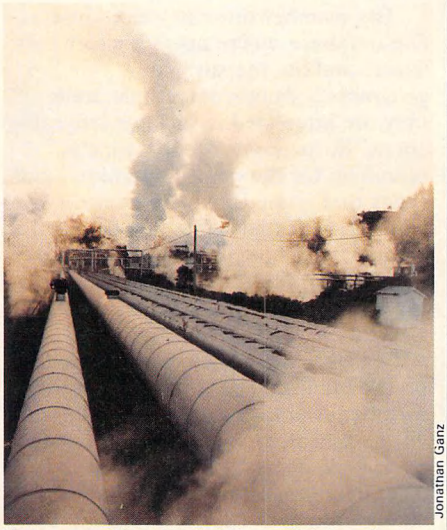
If you are adventuresome, you can hike to the top of the smaller of three volcanoes (about 6,400 feet in elevation), and look into the water-filled steaming caldera at the top. The trek takes about two hours to reach the top and a half-hour to come down. Be sure to bring warm clothes, a hat, lip balm, sun-block and sunglasses. The sun is warm, but the wind can be brutal.

After you've had your fill of the snow, drive to Rotorua to warm up at the hot springs. (On the way, be sure to stop at the Wairakei Geothermal Power Station outside of Taupo to see how much New Zealand relies on thermal power from the many volcanoes.) When you finish soaking in the various hot springs, drive about three hours north to Tauranga and then up the Coromandel Peninsula.

The Coromandel Peninsula extends about 60 miles into the South Pacific. The two-hour trip up the entire length of the peninsula is worthwhile for the sunset and Auckland night lights from across the Gulf of Hauraki, but the most novel destination is only about an hour from Tauranga: the Hot Water Beach on the eastern side of the peninsula. Follow the signs along the dirt road until you get to the beach. And what a beach! (According to the Kiwis—as the New Zealanders call themselves—if there are more than a few people on the beach, go elsewhere because it is too crowded.)

Walk out onto the beach until you reach a large outcrop of rock. Where the rock meets the sea is where you want to be. The large rocks are actually a volcanic "plug" left from the last eruption. As you'll see, the volcano is silent but not extinct.

Below about two feet of sand is boiling water escaping from an underground steam vent. If you get there before high tide (check with the locals for an exact time), start digging just above the waterline. Make a hole large enough to sit in. Eventually, your hands will start to get warm, then hot. Dig a shallow channel so that sea water can get in but not completely flood the



Jonathan Ganz

Hot spot: *Wairakei Geothermal Power Station*

hole. Be careful to allow in enough cool sea water—the water underneath the sand can get excruciatingly hot in a matter of seconds.

Transportation

Car rentals are reasonable—although the per-mile charges can add up quickly—and give you the freedom to change your itinerary. Travelshopper (GO PARS) and Eaasy Sabre (GO EAASY) offer car-rental information and booking capabilities that can assist you with your plans. If you are sure of where you want to go, you can take the inexpensive and frequent buses between towns.

If you drive, be cautious on the many curves that wind through the lush countryside. You can unexpectedly come across blankets of steam drifting across the road from volcanic vents along the roadside.

Jonathan Ganz

Warm waterfall: *Boiling water escapes from steam vents*

The Weather

New Zealand temperatures vary from an average mid-summer temperature in Auckland of 73 degrees to about 57 degrees in the winter. The average temperatures are a little higher in the north and east. Expect occasional rain during the early fall through late spring. You can check the annual rainfall amounts, and the seasonal highs and lows on CompuServe (GO WEATHER).

A word of caution: despite the warm summer temperatures, the sun is very strong. If you normally spend an hour in the sun on the first day, spend about a half hour in the sun in New Zealand, as the air is free of the pollutants that filter out some of the ultraviolet rays. But don't despair, the Kiwis are happy to entertain you in the shade with bowls of the sliced green fruit, excellent lamb (the staple) and "jugs of draft" from the local pub.

Pacific scenery: *Visitors ski on New Zealand's active volcanoes*

Jonathan Ganz is a free-lance writer based in Portola Valley, Calif. His CompuServe User ID number is 74425,1054.

Know Your Dollar's Worth Worldwide

In today's global economy, currency rates fluctuate frequently. The dollar's value abroad can change several times a day. Travelshopper offers a daily online update of currency conversions, giving the latest information on the value of currencies worldwide.

The service is simple and straightforward to use. Menu prompts question you each step of the way. Three possible conversion methods are offered: United States-to-foreign, foreign-to-United States and foreign-to-foreign.

To find out how much the dollar is worth in any country, type 100/NAME OF COUNTRY. In seconds, the system will tell you how much the dollar is worth in that country's currency. This feature is useful to those planning to travel abroad or to those investing in foreign markets.

By typing NAME OF COUNTRY/100, the foreign-to-US conversion tells how much a pound, a franc, a yen or any other currency is worth in US dollars. For those cashing in foreign investments, this feature can help to achieve the best timing for making the most money. It is also useful for the international traveler. For instance, to purchase an airline ticket from London to San Francisco, you need to know the conversion rate to get the best ticket price.

The foreign-to-foreign conversion enables you to find out such information as how much a French franc is worth in Italy or how far a British pound will go in Japan. Most currencies can be entered. Just type the foreign currency amount, the country you're converting from, a slash and the country you're converting to, for example, 100 FRANCE/ITALY. This feature is helpful to the international traveler who may be visiting several countries on one trip.

Travelshopper's currency conversions can be reached by typing GO PARS, accessing Travelshopper (menu Option 5), selecting "Browse Fares/Flights/Other Services" (Option 1) on the following menu, then choosing "Other Services/Nice to Know Info" (Option 4) on the next menu and finally selecting "Currency Conversion" (Option 6) on the last menu.

Okidata Microline 182:

A Utilitarian Personal Printer

Okidata
Div. of Oki America
532 Fellowship Rd.
Mt. Laurel, NJ 08054
609/235-2600

Computers: Any computer supporting the Epson or Okidata character sets.
Operating Systems: As required by computer.
Features: Nine-pin dot-matrix printer; draft (180 cps), utility and NLQ (30 cps) printing speeds; parallel and serial interfaces; accepts single sheet or sprocket-loaded continuous-form paper; bottom or rear paper feed; toll-free help line.
Options: RSC232-C Super Speed Board; tractor feed mechanism; model specifically designed for IBM-compatible computers is available.
Model Tested: Standard Microline 182 connected to 640K IBM PC via parallel port and to Laser 128 (Apple-compatible) computer via parallel port.
Base Price: $309

Reviewed by Brian D. Monahan

Okidata's Microline 182 printer is a compact nine-pin dot-matrix printer with enough speed for most users. This printer is distinguished by its reasonable price and more than adequate print quality at all speeds. Furthermore, this printer is extremely light, so Okidata's designation of the 182 as a "personal" printer is accurate.

The Microline 182 has the advantage of being able to work with several types of computers. A corresponding disadvantage is that some setup is required. The printer was tested successfully with both IBM PC and Apple-compatible Laser 128 computers, but setting or resetting printer switches was required. To do so, you need a Phillips screwdriver and a fine-tipped tool such as a stylus (or a ballpoint pen). Instructions for handling the setup are described clearly in the manual.

Three print modes are available: near-letter-quality at 30 characters per second, high-speed draft quality at 180 characters per second and an intermediate utility quality. The near-letter-quality mode is within acceptable ranges of speed and quality for a printer in this price range. The utility mode offers the advantage of higher speed while continuing to provide boldfacing, emphasized type or italics. The high-speed mode provides the highest printing speed but on special print attributes other than underlining.

The Microline 182 also offers the standard printer features one would expect. Form length, line spacing, tabs and margins may be set. These features may be implemented by programming, but most users probably will let their applications software do the programming for them via printer setups within those applications.

One feature not on the 182 that users might miss is a full-featured front panel. Although the front panel can be used to switch the printer online or offline and also can send form and line feeds, it cannot be used to control pitch and print quality. Some other Okidata printers, including the Microline 182 Plus, do have full-featured front panels, which may give them an advantage over this particular model.

Another feature some users may find lacking is an internal printer buffer. Since the printer has no memory of its own for temporarily storing computer output, the computer will be tied up as long as it takes for the printer to print a document, unless a computer-resident buffer is provided via software or a hardware buffer device is interposed between the computer and printer.

The printer's manual provides specific instructions for using the Microline 182 with Volkswriter Deluxe, AppleWorks, Bank Street Writer and WordStar. Since the entire Okidata Microline printer series has enjoyed popularity, users will find that most widely used software can be installed easily. Framework and WordPerfect for the IBM and newer versions of AppleWorks for the Apple are two that are directly supported. The manual is adequate but a bit confusing because it covers both standard and IBM-compatible versions of the printer.

Loading paper into a new printer the first few times often is almost enough to make one give up computing, but loading paper into the Microline 182 is easy. Letter-size continuous-form or fanfold paper can be loaded using the sprocket pins built into the platen. Other paper sizes can be accommodated with an optional forms tractor. The printer's ability to accept fanfold paper with either a rear or bottom feed is especially attractive for those who want to keep their offices less cluttered. The printer also will accept single sheets such as letterheads, but the continuous paper must be removed before a single sheet can be inserted.

The printer's ribbon comes in a cartridge and it is easy to install with clear directions. Furthermore, the printer is reasonably quiet in all printing modes.

Okidata has long been a leader in the production and sale of highly reliable printers. That reliability has made them popular with volume buyers and value-added retailers. The Microline 182 is aimed at that market as well as the home market, and this printer also should prove to be reliable. I was advised by the manufacturer to test the printer by having it print while resting at a 90 degree angle. I did so, and it worked flawlessly.

Those who will be working exclusively with IBM and compatible computers probably will prefer a printer that emulates the IBM Proprinter, but users willing to do some setup will find that the Microline 182 is a fairly priced, reliable printer that provides all the performance one would expect on a printer in its price range.

Brian D. Monahan is an associate professor of computer science at Iona College in New Rochelle, N.Y.

GO OLI or circle 9 on the Reader Service Form.

Go Online for More Hardware Reviews

The following hardware review is available this month in *Online Today Daily Edition* (GO OLT-220).

PC Emcee
Computer Video Show Coprocessor
Manufacturer: *Computer Support*
Computers: *IBM compatibles.*

Want to Read More Hardware Reviews?

GO OLT-220 from any prompt in the CompuServe Information Service and choose this month's reviews from the main menu.

ONLINE TODAY

Okidata Microline 293

Dual-Head Dot-Matrix Printer

Okidata
Div. of Oki America
532 Fellowship Rd.
Mt. Laurel, NJ 08054
609/235-2600

Computers: Plug-in modules available for various computers including IBM-compatibles and computers with Centronics-compatible parallel ports or RS-232 serial ports.
Features: Dual nine-pin print heads; maximum print speed 240 cps draft quality or 100 cps near letter quality at 10, 12, or 17 cpi; front panel-selectable print styles including italics; color or black-and-white printing; 8K data buffer; proportional spacing; bit-image graphics in single, double or quadruple density.
Options: Choice of IBM or Microline "Personality Modules"; cut sheet feeder; color ribbon cartridge; 32K buffer; parallel or serial interface.
System Used for Test: 1MB TeleVideo TeleCat-286 with Hercules Graphics Card Plus, two diskette drives and Control Data 40MB hard disk; running PC-DOS 3.3.
List Price: $595

Reviewed by William J. Lynott

As a longtime satisfied user of an Okidata printer (the original Microline 84), I was anxious to see what changes I would find in the newer Microline 293, which is a wide carriage version of the model 292.

The first difference is weight, as was obvious from the moment I unpacked the carton. It wasn't until I picked up the new printer that I realized how heavy and solid my old Microline 84 seems. At a mere 16.5 pounds, the Microline 293 somehow feels flimsy (the 292 weighs only 12.5 pounds).

"Not to worry," an Okidata representative told me. "The 293 uses state-of-the-art technology and less steel in its construction; thus the drop in weight. But it is rock solid in performance and has a mean-time-between-failures rating at least as good as the old model 84." With that assurance, I felt better. Who needs all that bulk anyway?

Once I got the printer running, which was simple with the help of crystal-clear user instructions, any doubts I had began to evaporate. The 293 rests in a sleek case that sports four multipurpose buttons on the front panel. The linefeed, formfeed, top-of-form and select buttons also function as control buttons for the built-in print menu. With settings ranging from 5 to 17.1 characters-per-inch plus nine print styles, there are 46 different typeface combinations.

Although the literature describes the print menu arrangement as an easy way to change typefaces, I didn't find that to be the case. To change attributes or a typeface through the controls, it is necessary to go through several steps that involve printing current settings and then selecting new choices. That is a real annoyance to me. Fortunately, the 293 emulates the IBM Graphics Printer, so most changes can be made painlessly through applications software.

The Microline 293 uses dual nine-pin printheads, which is quite different from merely doubling the number of pins in a single head. With two heads slightly offset, near-letter-quality (NLQ) printing can be done in a single pass for each line. This makes for much faster NLQ printing than would be possible otherwise. And NLQ printouts from the Microline 293 are excellent. It takes a close look to detect any significant differences between them and outputs from average daisywheel printers, which is a major improvement over the old model 84. At the same time, the dual-head arrangement maintains compatibility with graphics software developed for nine-pin printheads.

As expected, there is a significant drop in quality at the lightning-fast draft mode of 240 characters per second. Yet I found the 200 characters per second of the utility mode an excellent middle ground for non-critical work such as printing mailing labels.

As a bonus, an acoustic cover comes with the printer and reduces noise to an acceptable level. I managed to talk comfortably on the phone while seated next to the 293 as it churned out a batch of mailing labels. That is no small feat with a dot-matrix printer running in high gear.

The tractor feed is standard on the 293 and is available as an option on the 292. It is a definite improvement over the model 84, which often caused continuous-feed labels to skew and jam until I replaced several parts supplied by Okidata. The 293's tractor adjustments are easy and sure. Once made, they hold firmly.

I was anxious to try the 293's graphics output, and I wasn't disappointed. I printed several bit-mapped graphic images using PC Paintbrush and found the results quite acceptable for a dot-matrix printer. While the output cannot be compared to that of a laser printer, the dual printheads do a good job of keeping down the distortion that sometimes is a problem with 24-pin printers.

One welcome improvement in the 293 is the use of ribbon cartridges instead of the messy reel-to-reel ribbons used by the model 84 and others of its era. The cartridges are relatively expensive ($12.95 for a black one), but are rated for an incredible 5 million characters. According to Okidata, the printheads in the 292/293 models are rated at 200 million characters with a mean-time-between-failures rating of 4,000 hours.

As I write this review, I've been using the 293 for a variety of chores for about three weeks. I've now decided it's the only dot-matrix printer I need.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

GO OLI or circle 10 on the Reader Service Form.

AMERICA'S #1 ON-LINE DISCOUNT BROKER

BUY AND SELL STOCKS ONLINE

And Save Brokerage Commissions

For A Free Brochure
On CompuServe
GO TKR

In The Electronic Mall
GO MU

Or Call Toll Free
(800) 223-6642

In New York
(212) 766-2610

Modem 5:00 PM - 9:00 AM
24 Hours Weekends
(212) 766-2610

MaxUle with
Meyers, Pollock, Robbins, Inc.

170 Broadway
Suite 505
NY, NY 10038

GO OLI or circle 11 on the Reader Service Form

Ventura Publisher

Packs Document Layout Power

Xerox
Xerox Square
P.O. Box 24
Rochester, NY 14692
800/832-6979

Computers: IBM PC, PC-XT, PC-AT, PS/2 and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.10 or higher.
Media: Supplied on 11 5.25-inch diskettes (six 3.5-inch diskettes available as $35 upgrade option to registered users); requires hard disk with 1MB to 3MB available space.
Copy Protection: None.
Required Peripherals: CGA, EGA or VGA compatible video system (also supports Micro Display Systems Genius, Wyse 700 and Xerox 6065 displays); mouse (supports popular brands and models); dot-matrix or laser printer (supports popular brands and models including PostScript and HPGL lasers).
Other Requirements: Minimum 512K RAM; 640K RAM recommended for documents longer than 20 pages.
Optional Items: None.
System Used for Test: 1,024K Proteus 286GTX with two 1.2MB diskette drives, one 20MB hard disk, two 15MB Sysgen DuraPak drives, ATI Technologies' VIP video adapter, NEC MultiSync monitor, Microsoft Mouse, Epson FX-85 printer and Acer LP-75 laser printer; running PC-DOS 3.10 at 12 MHz.
List Price: $895

Reviewed by Ernest E. Mau

Desk File Edit View Page Frame Paragraph Graphic Options
Facing Pages View
Reduced View ^R
Normal View (1x) ^N
Enlarged View (2x) ^E
Frame Setting ^U
Paragraph Tagging ^I
Text Editing ^O
Graphic Drawing ^P
(SCOOP.STY)
Add New Frame
COLUMBIA.GEM
NOZZLE.GEM
SCOOP1.TXT
SCOOP2.TXT
EMPTY
R Pg # 0001
This is an example of an AutoCAD DXF file converted using the external DXF converter, and then brought into Ventura Publisher using the Load Text/Picture function.
Version 1.1 Redefines Desktop Publishing—Again

Powerful document layout desktop publishing package: *Ventura Publisher*

It's getting hard to pick a desktop publisher today. Not only are many features matters of personal preference, but applications are so broad that no package satisfies everyone.

For example, a person doing long, repetitively structured documents, such as technical manuals, needs a different system than the person who produces short, individually designed reports, brochures and the like. Someone who produces just a few pages a month usually needs a system that is less powerful but is easier to learn and operate than someone who sets up new documents day after day.

Ventura Publisher (version 1.1) crosses some traditional lines. Although this WYSIWYG (what-you-see-is-what-you-get) publisher is highly effective for short publications, it is also suitable for long documents because it is built around a chapter concept that allows expansion into multichapter productions such as books and manuals.

It is also style-sheet oriented, so preset formats can be applied to any document regardless of length. The package comes with sample style sheets for books, brochures, letters, magazines, press releases, proposals and technical manuals. The user may apply or modify those or create new style sheets from scratch.

Before using Ventura Publisher, I'd already run other popular WYSIWYG desktop publishers such as Ashton-Tate's Byline and Aldus' PageMaker. While I admire each in its own way, Ventura Publisher prevails in my applications because it provides a broader range of features coupled with greater versatility.

Yet greater capabilities mean Ventura Publisher's learning curve is steeper and longer than some other WYSIWYG publishers. While the basics are simple enough to produce simple documents within an hour or two after installing the package, the real power can take weeks or months to learn. The more intricate the production requirements, the more study and experimentation will be needed, but the better suited Ventura Publisher will seem.

This system isn't for casual users. Someone who prepares only a few pages a month may never find all the power that is available. Instead, Ventura Publisher is for serious users who do extensive and frequent page layouts and who take the time to find all the capabilities it has.

Among its capabilities, Ventura Publisher handles both portrait and landscape layouts for popular paper sizes—letter, legal, double, A4, B5 and broad sheets. It handles single or double sides and even lets the user choose between starting a chapter on a left or right page. Complex headers and footers also can be adjusted for left or right pages. Footnotes can be inserted with format controls and automatic numbering. Text can be right-justified, or ragged text can be aligned left, right

or center. Hyphenation normally is done automatically but can be turned off when necessary, and discretionary hyphens can be inserted almost anywhere. There is even control over whether hyphenation will be allowed on one, two, three, four, five or unlimited successive lines.

The program can control "widows" and "orphans," limiting them to any setting from one to five isolated lines. Font selections and changes are quick and easy, and Ventura Publisher allows control over interline leading and intercharacter kerning. Not only can kerning be turned on or off, it can be loosened or tightened. Special effects, such as putting a big first character at the start of a paragraph, take a tap or two on the mouse button. In fact, a properly structured style sheet enables the user to quickly mark a text block and then set or reset type for normal body text, chapter numbers, chapter titles, first paragraphs, major headings or minor headings. Furthermore, 13 styles of "bullets" are available.

With those and many more features, it is natural to expect Ventura Publisher to flow text automatically and effortlessly. It does. Activate a graphics frame and drag it to a new position or resize it, and text adjusts immediately and automatically to fit around it. Meanwhile captions can be permanently tied to illustrations so they move with the pictures.

Speaking of illustrations, Ventura Publisher has a drawing facility for lines, circles, rectangles, round-cornered rectangles and boxed text. But most pictures are imported from other sources. Compatible line-art includes GEM, AutoCAD, Lotus PIC, Mentor Graphics, VideoShow, Macintosh PICT, CGM metafiles, PostScript and HPGL formats. Compatible bit-mapped images include GEM/Halo DPE, PC Paintbrush PCX/PCC and MacPaint formats. However, some formats require intermediate conversion, such as PC Paintbrush files, that Ventura automatically translates and saves to disk as GEM-style image files.

Like most desktop publishers, this one has a text editor, but it isn't a real word processor and is useful mostly for quick, on-the-spot adjustments. Body text should be prepared externally and imported into Ventura Publisher from ASCII files or from WordStar, MultiMate, Microsoft Word, Xerox Writer, WordPerfect, XyWrite, Displaywrite or compatible document files. Here, too, some preparation may be necessary, even though Ventura Publisher can recognize most attributes, such as boldfacing and underlining, in the source files. For example, WordStar documents should not have multiple spaces for paragraph indents but should start each paragraph flush left so Ventura Publisher can do its own paragraph indenting.

One warning. If text is brought in from a program such as WordStar, the file will be altered when Ventura Publisher saves a chapter to disk. Although the resulting file is readable with the original program, internal formatting changes (including new embedded commands) are made. It is important that only copies of input files be used to prevent unwanted changes to originals.

This review gives only a taste of Ventura Publisher's capabilities. No review of reasonable length could cover all the features. Yet, like all programs, there is room for improvement. I'd like to see support for more graphics formats, particularly for Inset PIX files, which would allow captured illustrations to be brought in without preliminary conversions. I'd like to see more steps in on-screen viewing sizes. At present, the package shows only reduced, normal and double-sized page displays (plus a facing pages view), but I'd like at least one step between each of those. I'd also like more automation in text importing, including the ability to automatically recognize and strip extraneous spaces in areas such as paragraph indents.

Nevertheless, Ventura Publisher is the most powerful and flexible WYSIWYG desktop publishing package I've seen so far. It isn't a "quick-and-dirty" package like some entry-level systems, but it is a potent tool in the hands of someone who demands high precision in their documents.

Ernest E. Mau, a full-time, free-lance writer and Online Today *reviews editor, is based in Aurora, Colo.*

GO OLI or circle 12 on the Reader Service Form.

US Robotics™ MICROCOM™ Cermetek CTS TELEBIT

FAMOUS BRAND
2400 BAUD
MODEMS
NOW ONLY 99*
HAYES COMPATIBLE
2 YR. MFG. WARRANTY
SOFTWARE INCLUDED
*IN PAIRS — SINGLES ADD $9

HIGH SPEED MODEMS
FAMOUS BRAND NAME
9600 BAUD $499
HAYES COMPAT 300-2400 • 5 YR WARR.
USR HST 9600 BAUD $599
MICROCOM QX12 $599
MICROCOM 9624C $995
MULTI-TECH 4800 $399
CERMETEK V.32 CALL

BBS · VOICE MAIL · FAX
MULTI-LINE BBS $395
VOICE MAIL CARD $219
FAX ON-A-CARD $289

MasterCard VISA AMERICAN EXPRESS
[O]NLINE STORE
BRAND NAMES FOR LESS!
(805) 650-0188
SUBJECT TO SUPPLY ON HAND

GO OLI or circle 13 on the Reader Service Form.

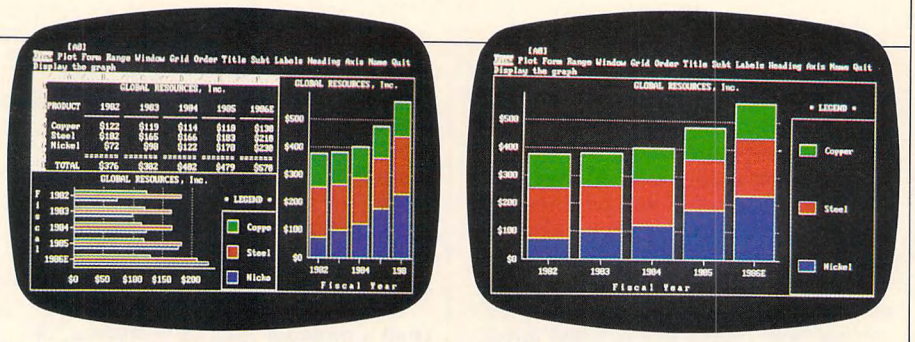
20/20:

A High-Functionality Spreadsheet

Access Technology
6 Pleasant St.
South Natick, MA 01760
617/655-9191

Computers: IBM PC, PC-XT, PC-AT, PS/2 and compatibles; available for numerous others.
Operating System: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires two diskette drives or one diskette drive and a fixed disk; available on both 5.25- and 3.5-inch diskettes.
Copy Protection: None.
Required Peripherals: Graphics board required for screen graphics (supports CGA, EGA and Hercules Graphics Card).
Other Requirements: Minimum 512K RAM.
Optional Items: Math coprocessor and extended memory version is available (must be specified at time of order).
System Used for Test: 640K Compaq Deskpro 286 with 1.2MB and 360K diskette drives, 40MB hard disk, Vega VGA card, NEC MultiSync II monitor and Hewlett-Packard LaserJet Plus printer; running MS-DOS 3.3.
List Price: $500

Reviewed by Harry Green


Plot Form Range Window Grid Order Title Subt Labels Heading Axis Name Quit
Display the graph
GLOBAL RESOURCES, Inc.
PRODUCT 1982 1983 1984 1985 1986E
Copper $122 $119 $114 $110 $130
Steel $182 $165 $166 $183 $210
Nickel 972 $90 $122 $170 $230
TOTAL $376 $382 $402 $473 $570
LEGEND
Copper
Steel
Nickel
Fiscal Year

High spreadsheet functionality and compatibility: *20/20*

Most software should be reviewed on its own merits without comparison to other programs. It is difficult to avoid comparisons of spreadsheets, however, because Lotus 1-2-3 has become virtually an industry standard.

It is easy to compare 20/20 to 1-2-3 because it does most of the same things, only in different ways. This program will not be accused of imitating the look or feel of 1-2-3 because nearly every command is different. The command line is called with the Backslash key and commands can be executed with cursor keys or by typing their first letters, but most commands have different names and few can be executed using 1-2-3's keystrokes.

If you're used to another spreadsheet, the transition to 20/20 isn't difficult. I deliberately started using it without opening the manual except to install the program. Eventually, I had to refer to the manual to understand some commands, but for the most part, using the spreadsheet is almost instinctive. The commands are logical and use a tree-structured menu, branches of which are defined as you scan the menu. There is, however, no worksheet menu in 20/20, so those who know 1-2-3 will have to pause to figure out how to insert and delete rows and columns, globally format or protect the spreadsheet, and set system defaults.

What sets 20/20 apart from its competitors is the vast number of computers it supports. The list is too long to include in this review, but Access Technology claims 20/20 runs on 25 hardware systems, including most brands of minicomputer, many mainframes and any IBM PC-compatible computer.

Some 20/20 features are superior to most other spreadsheets. One feature I particularly like is the print function, which automatically defaults the print range to the entire spreadsheet and saves time compared with setting a range manually.

Another useful feature is 20/20's ability to split the screen into four windows, where you can watch four graphs or regions of the spreadsheet simultaneously.

Graphics printing is included in the 20/20 program, so it is unnecessary to invoke a second program to print graphs.

The copy command is different from any spreadsheet I've used. It can copy values or formats. Although this requires an extra keystroke in the most frequently used function of a spreadsheet, it saves time when you would otherwise have to change formulas to values before copying.

Although most 20/20 features are easy to use, a few operations are awkward. The most inconvenient is the directory. Most spreadsheets automatically display a directory on the command line when you read or write files. With 20/20, you must execute a directory command that takes you to DOS to review a list of files, and you then type the name of the file you want.

Another drawback is in the way 20/20 handles labels. If you indent labels without first typing a justification character, such as an apostrophe, 20/20 ignores leading spaces.

But the greatest drawback I found with 20/20 is the limited amount of worksheet space available. It has only about 94,000 bytes available on my computer, which is about 40 percent of the space available to me on the same computer with 1-2-3.

Unlike some spreadsheets that can read 1-2-3 files directly, you must convert such files to 20/20 using a two-step process. The first step uses a utility program to create a file that can be imported from the command menu. Not all commands can be transferred directly from 1-2-3, and an error file is created if 20/20 makes substitutions. I converted several spreadsheets that used many 1-2-3 functions, and they worked with only a few adjustments. Notably, 20/20's macro feature has some minor differences from 1-2-3's, so macros are transferred as labels and must be handled manually.

Although 20/20's macro feature is excellent, it would be improved with a "learn" feature. Macros start with a # sign and are executed by pressing a function key and calling the macro. Both internal and external macros can be called, which lets you keep a library of macros and use them without importing them.

Spreadsheets have undergone a dramatic revolution since they first appeared. All the features users have come to expect are included in 20/20. The keystrokes are different from many other spreadsheets, but the functionality is equivalent, if not exactly the same. Although the primary attraction for most users will be compatibility with 20/20 running on minicomputers, the version for IBM PCs and compatibles certainly holds its own in standalone personal computing environments.

Harry Green is president of Pacific Netcom Inc., a Portland, Ore., firm that consults with businesses on using office automation and telecommunications to improve productivity. His CompuServe User ID number is 70007,1416.

GO OLI or circle 14 on the Reader Service Form.

Dr. Halo III

Program Puts Punch in Draw-and-Paint Graphics

IMSI
1299 Fourth St.
San Rafael, Ca 94901
415/454-7101

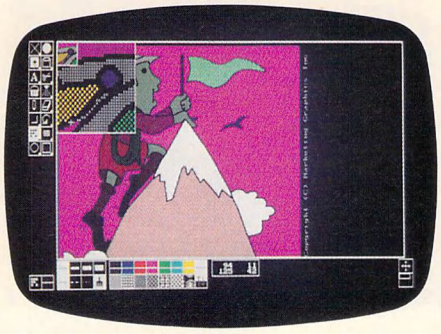
Computers: IBM PC, PC-XT, PC-AT, PS/2 and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.1 or higher.
Media: Supplied on two 5.25-inch diskettes; 3.5-inch PS/2 diskettes available; third diskette with supplemental drivers is available free of charge; requires two diskette drives or one diskette drive and a hard disk.
Copy Protection: None.
Required Peripherals: Color or monochrome monitor with video adapter (supports numerous video adapters including CGA, EGA, MCGA, VGA, Hercules monochrome, Hercules InColor and others).
Other Requirements: Minimum 384K RAM.
Optional Items: Mouse, digitizer or scanner; dot-matrix, laser or ink jet printer.
System Used for Test: 1,024K Proteus 286GTX with two 1.2MB diskette drives, 20MB hard disk, two 15MB Sysgen DuraPak drives, ATI VIP video adapter, NEC MultiSync monitor, Microsoft Mouse and Acer LP-75 laser printer; running IBM PC-DOS 3.10.
List Price: $139

Reviewed by Ernest E. Mau

Among draw-and-paint graphics programs, Dr. Halo is a venerable elder. It has been around for years, establishing longevity in the marketplace. Wide acceptance among users is demonstrated by the large number of other programs, such as desktop publishers, that have specific provisions for Dr. Halo drawings, especially the CUT files it can produce.

IMSI's Dr. Halo III (version 3.00.08) is the latest release, and it is about as up-to-date as a program can get for video adapters and graphics printers. Changing video adapters or printers takes seconds.

I'm most impressed by the video support. For IBM PC, PC-AT and compatible computers, the setup routine offers 32 video adapter choices, with most having further resolution selections. An IBM EGA setup offers conventional 640-by-200 and 650-by-350



Up-to-date draw-and-paint: *Dr. Halo III*

displays in two, 640-by-800 four or 16 colors, but also offers a 640-by-800, 16-color scrolling-screen. Surprisingly, the program doesn't offer IBM VGA or MCGA for IBM PC or PC-AT computers, only for a PS/2. Yet I can "cheat" with my VGA-equipped PC-AT-compatible by telling Dr. Halo III it is an IBM PS/2 Model 30 with VGA. I then can access VGA settings up to 640-by-480 with 16 colors or MCGA 320-by-200 with 256 colors.

Not all video drivers on the setup menu come with the package; 21 are on a supplemental diskette that users can receive free on request. One of those is a driver for ATI "Wonder" cards and that works with my VGA-capable ATI VIP card to provide EGA-like displays plus 640-by-800 and 800-by-560 16-color displays (but not the 752-by-410 16-color display listed on the menu).

The tricky part of setting up Dr. Halo III is determining a "virtual page" size for certain printers. The virtual page is the extent of a full printer page that the program can handle in a single drawing. That setting affects the program's memory requirements. If a virtual page is too large, the program won't run, saying it needs a certain amount of additional memory. An appendix in the manual purports to help in calculating memory and virtual page size, but it is almost useless because it deals only in resolution versus pixels, while the setup routine asks for a percentage of overall printer page size. I had to establish a maximum page size purely by trial and error.

Once set up and running, Dr. Halo III operates smoothly. It is icon-driven, with 13 of 16 function and drawing icons having pop-up parameter menus or additional icons. The conventional drawing controls include selectable line widths and fill patterns, page clearing to foreground or background color, area painting (filling), airbrushing, moving, rotating and copying. Selectable degrees of drawing magnification facilitate pixel-by-pixel manipulation and quick zooming to full-page view shows entire drawing layouts when a virtual page is being used. The program provides selectable area, page and point grids at selectable separations, and it has drawing functions for straight lines, curves and filled or unfilled circles, ellipses and rectangles. It also can create, save and retrieve symbols.

Twenty-five typefaces are provided for text entered at the keyboard or imported from document files, and the program affords control over type sizes, type direction, dropshadows, underlining and rotation.

Since Dr. Halo III can be run in color-intensive modes, it provides interesting color controls, depending on the video adapter and mode in use. For example, it has the ability to alter palettes, change background colors or even combine the user's choices of two designated colors such as red and yellow for fill patterns. Custom palettes can be saved to disk and retrieved with pictures to assure that a displayed picture retains its original colors.

In addition, Dr. Halo III comes with a useful screen grabber that can capture images from the displays of other programs, providing an easy way to accumulate drawings, clip art and the like. It also has an acceptably powerful slide presentation system that can create and manage complex on-screen shows. While the presentation program can handle manual or timed slide changes, screen offsets, nested sequences and the like, it lacks sophisticated fades and wipes. Controllable wipes, such as top down, bottom up and center out, would make presentations more interesting.

Nevertheless, Dr. Halo III is a slick package with more than enough power for most users, especially considering its low price. Because it is widely recognized by other programs, users needn't feel trapped in an isolated world either. Even if some program doesn't support Halo pictures or CUT files directly, there are programs capable of converting drawings to other formats.

Ernest E. Mau, a full-time, free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

GO OLI or circle 15 on the Reader Service Form.

ViewPoint:

Top-Drawer Project-Management

Computer Aided Management
24 Professional Center Pkwy.
San Rafael, CA 94903-2703
415/472-5120

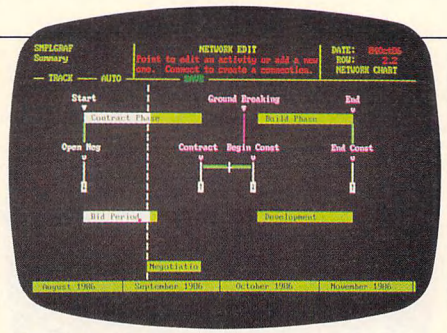
Computers: IBM PC, PC-XT, PC-AT, PS/2 and compatibles.
Operating System: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires one diskette drive and a fixed disk with at least 2MB of available space; may be ordered with either 3.5- or 5.25-inch diskettes.
Copy Protection: None.
Required Peripherals: Color graphics card or Compaq-style gray shade monitor.
Other Requirements: Minimum 512K of RAM.
Optional Items: Graphics printer or plotter.
System Used for Test: 640K Compaq Deskpro 286 with 1.2MB and 360K diskette drives; 40MB hard disk, Vega VGA video adapter, NEC MultiSync II monitor, Hewlett-Packard LaserJet Plus printer; running MS-DOS 3.3.
List Prices: $1,995 for Viewpoint; $995 for Graphics.

Reviewed by Harry Green

Anyone who has managed a major project knows that at least half the job is information management. Project managers prepare work plans and schedules, assign tasks and receive status reports. They receive and coordinate work plans from related projects. Above all, they cope with frequent changes. When changes occur, new project networks and schedules must be prepared. There is a constant demand from higher management for reports.

Project management is a job that obviously can be supported effectively by a computer. In fact, people have done so for years, but only recently has personal computer software become sophisticated enough to rival mainframe capabilities.

ViewPoint is among the most sophisticated personal computer project managers. It is possible to manage projects with spreadsheets and inexpensive scheduling tools, but they lack essential elements. An effective tool should be able to adapt to frequent changes and prepare a battery of reports, including Program Evaluation and Review Technique charts and Gantt charts.



Sophisticated project manager: *ViewPoint*

A PERT chart is an interlocking network that shows the temporal relationship between activities and events through symbols and arrows. A Gantt chart is a bar chart that plots the duration of an activity on a time scale. ViewPoint handles these with style.

ViewPoint's screen is beautifully designed, but if you don't have a color display, you'll miss half the benefit. You can draw a PERT network on the screen by aiming crosshairs at the start date and calling an entry window. When you've entered a title, number of elapsed days and other pertinent information, you can accept the activity and collapse the window by pressing a key or clicking a mouse.

You can fill the screen with entry boxes and link boxes by moving the crosshairs. Activities can be linked start-to-start, finish-to-start or finish-to-finish. These mean an activity can't start until a related activity has started, an activity must finish before another starts or an activity must finish before another can complete. Unlike some project-management packages, ViewPoint handles all three categories. Putting the crosshairs anywhere in the first half of an activity box represents the start, and the second half represents the finish. The mouse or Plus and Minus keys draw interconnecting lines.

The screen quickly becomes cluttered with a multi-activity project, which is a familiar state to anyone who has tried designing a PERT network by hand. ViewPoint automatically moves boxes to reduce the number of crossovers, but some still occur, so multiple colors help reduce confusion.

ViewPoint automatically calculates the critical path, showing it in high intensity or red. The critical path is the longest chain of activities from start to finish and is a detail that project managers observe closely. Activities on this path require the most monitoring because if one due date slips, the project slips.

A three-level tutorial does an excellent job of acquainting users with ViewPoint's major features. The tutorial uses ViewPoint's screens, but it's offline, so interaction is confined to pressing a key to advance screens. I would have liked a more interactive tutorial because some operations are difficult to master, and the tutorial explains them better than the manual.

When I started to plan a project, I had to rereview sections of the tutorial. Computer Aided Management offers a three-day training course included with the price of the package. Although you can run ViewPoint without the course, it would undoubtedly accelerate the learning process.

After you've learned the system, ViewPoint offers an extremely effective way of planning a project using a top-down process. To illustrate, assume you're building a house. First you'd plan major activities such as site preparation, foundation pouring, framing, roofing and interior finishing. Each element contains multiple tasks, but the immediate objective is to plan the overall time frame allocated to each major element and to compress that into time available.

This is top-down planning in which elements can be displayed as a tree or PERT structure with interconnections and overlaps. After you've fit the overall project into the required time frame, you can detail individual elements. If you perform the same kind of project repeatedly, you can store elements in a library and reuse them in other plans simply by changing dates and people responsible.

ViewPoint's reporting capabilities are impressive. Reports are chosen from a menu and present information a project manager must prepare in forms readily understood by those familiar with project management. An optional graphics package displays PERT and Gantt charts plus three less-common displays. Graphics options are selected from pull-down menus and are sent to the output device (screen, printer or plotter). Drivers are included for most popular devices.

The only drawback is speed. You'd be well advised to schedule printing PERT or Gantt charts for late in the afternoon so you can leave the system to do its work overnight. PERT charts take about six to seven minutes per page with a parallel connected LaserJet, and a complex project can easily run to dozens of pages. But the output is worth the wait. The quality is high and the charts are readable.

ViewPoint isn't an easy program to master, but no program that has this much power is. There is much to recommend ViewPoint and little to criticize. Its displays are superb, particularly in color, and its use of a mouse for constructing a network diagram is much less awkward than moving a cursor with function keys.

I think ViewPoint's greatest advantage is in the way it leads the user to think and function as a project manager. I've managed dozens of projects using both manual and mechanized methods, and I find that ViewPoint doesn't force me to change any procedures I'm familiar with; it only changes the way they're done, usually for the better.

Harry Green, a free-lance writer from Portland, Ore., writes about telecommunications, office automation and personal computer-related topics. His CompuServe User ID number is 70007,431.

GO OLI or circle 16 on the Reader Service Form.

Go Online for More Software Reviews

The following software reviews are available in *Online Today Daily Edition* by typing GO OLT-230 at any CompuServe Information Service prompt. Many daily-edition and some print-edition software reviews are supplemented with GIF graphics that may be viewed in or downloaded from Library 6 of the *Online Today* Readers' Forum (GO OLTFORUM).

BeckerText
Amiga Word Processor and Graphics
Manufacturer: *Abacus Software*
Computer: *Commodore Amiga.*

Lex PDQ Word Processor
Manufacturer: *Trajectory Software*
Computers: *IBM compatibles; UNIX; XENIX.*

Grafeas Multilingual Word Processor
Manufacturer: *Apollon Engineering*
Computers: *IBM compatibles.*

PFS: First Choice Integrated Software
Manufacturer: *Software Publishing*
Computers: *IBM compatibles.*

Exact Math & Scientific Typesetter
Manufacturer: *Technical Support Software Inc.*
Computers: *IBM compatibles.*

Publisher's Paintbrush Graphics
Manufacturer: *Z-Soft Corp.*
Computers: *IBM compatibles.*

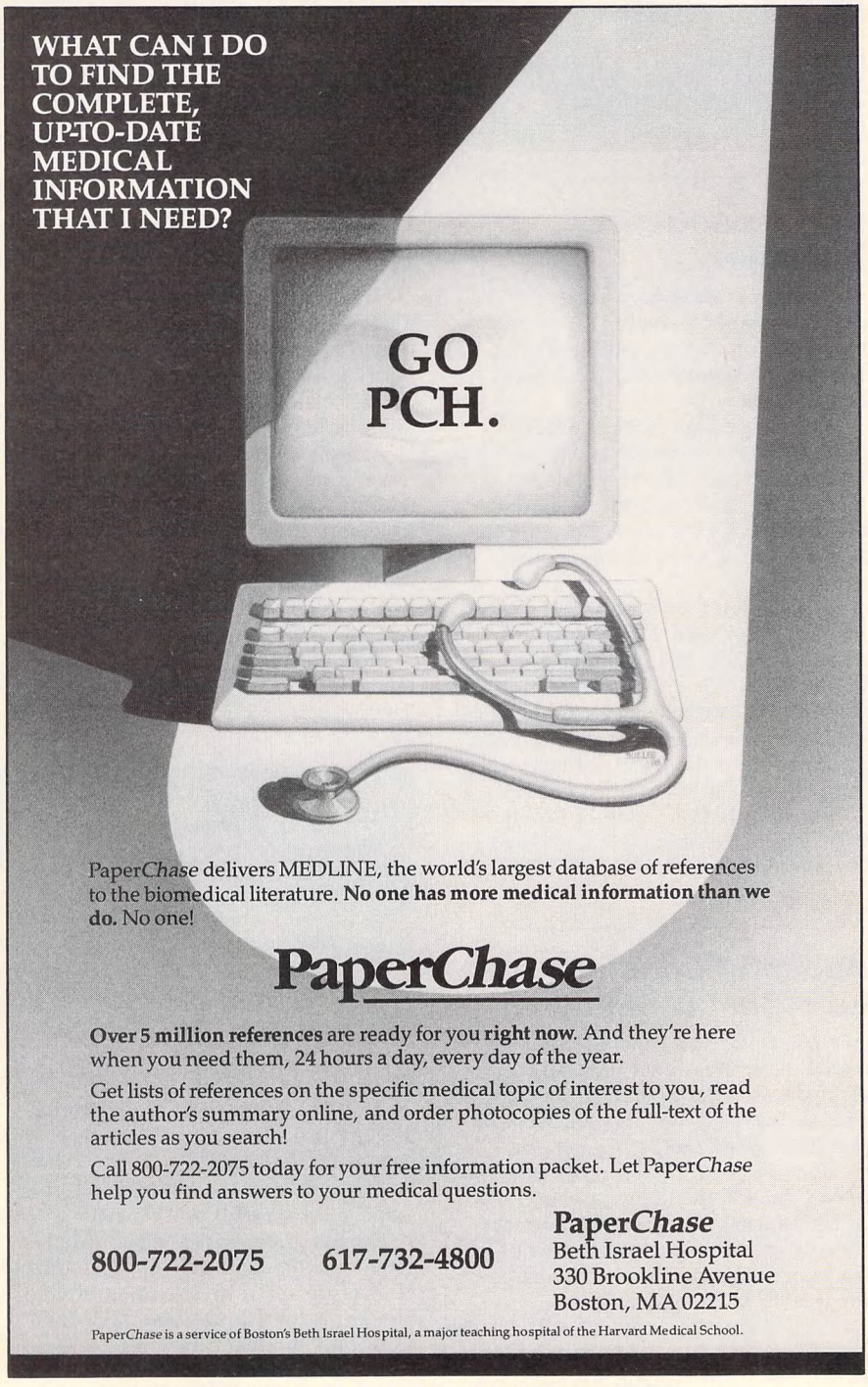
Plantrac Project Manager
Manufacturer: *Computerline Inc.*
Computers: *IBM compatibles.*

Harvard Total Project Manager II
Manufacturer: *Software Publishing*
Computers: *IBM compatibles.*

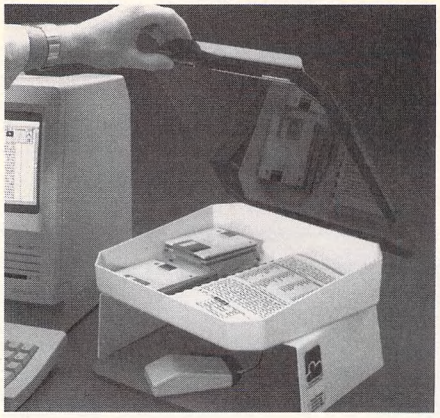
Tornado Random Information Processor
Manufacturer: *Micro Logic Corp.*
Computers: *IBM compatibles.*

Peabody For C Language
Manufacturer: *Copia International*
Computers: *IBM compatibles.*

C Workshop Tutorial and Compiler
Manufacturer: *Wordcraft*
Computers: *IBM compatibles.*


WHAT CAN I DO TO FIND THE COMPLETE, UP-TO-DATE MEDICAL INFORMATION THAT I NEED?
GO PCH.
PaperChase delivers MEDLINE, the world's largest database of references to the biomedical literature. No one has more medical information than we do. No one!
PaperChase
Over 5 million references are ready for you right now. And they're here when you need them, 24 hours a day, every day of the year.
Get lists of references on the specific medical topic of interest to you, read the author's summary online, and order photocopies of the full-text of the articles as you search!
Call 800-722-2075 today for your free information packet. Let PaperChase help you find answers to your medical questions.
800-722-2075
617-732-4800
PaperChase
Beth Israel Hospital
330 Brookline Avenue
Boston, MA 02215
PaperChase is a service of Boston's Beth Israel Hospital, a major teaching hospital of the Harvard Medical School.

GO OLI or circle 17 on the Reader Service Form.

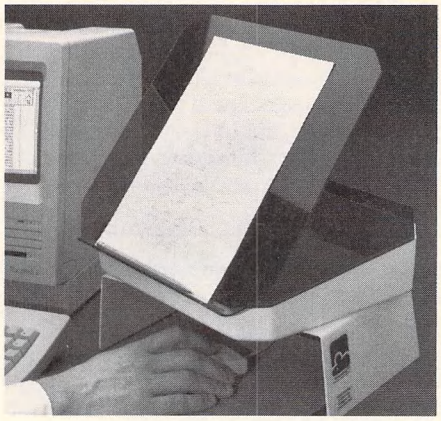


Mousetrap Workstation

Gered has introduced the Mousetrap, an auxiliary workstation designed to keep the computer mouse in an enclosed yet completely accessible area.

The Mousetrap also includes a storage area and a swivel stand. It is designed with plenty of room underneath the base for the user to maneuver the controls. It fits all mousepads.

The retail price is $39.95 plus $4 shipping and handling from Gered Corp., 2401 N.E. Cornell Rd., Suite 125, Hillsboro, OR 97124; 503/591-8658.



Correspondence Manager

Connex Professional Correspondence Manager (version 1.0) includes numerous office automation/mail enhancement features that will benefit business users.

This office-management software package from Productivity Performance lowers the cost of correspondence and mailing nearly 75 percent by automating document generation and information dissemination via existing mail services.

With Connex PCM, an IBM PC, PC-XT, PC-AT, PS/2 or compatible and a modem, users can generate documents more efficiently, merge information from a database and send business-quality correspondence or time-sensitive information to thousands of recipients in minutes. The retail price is $495.

For information, contact Productivity Performance Inc., 214 Colton St., Newport Beach, CA 92663; 714/631-0515.

Acoustic Coupler Low-Cost Modems

ABC Data-Kap Computer has introduced the Professional Inductive Acoustic Coupler Speedy 1200M and 2400M, low-cost modems for use with portable computers.

Controlled by a microprocessor, the units offer full-duplex with baud rates of 300 to 2400. Weighing 10.5 ounces, they work with a battery and will transmit automatically depending on the quality of the phone line.

For information, contact ABC Data-Kap Computer Inc., 1444 Biscayne Blvd., Suite 220, Miami, FL 33132; 305/372-0777.

Communications/Info Retrieval Tool

Trialogue from Fundamentals Co. is a communications product that gives online professionals and users of online information simultaneous access to databases for demonstration, training and ongoing user support.

Trialogue offers a unique option to those needing to convey online information without requiring the recipient to have a knowledge of the necessary accessing protocols, searching or reporting expertise. For instance, the product can be used to run online searches for individuals at remote sites.

For information, contact Fundamentals Co., 119 Main St., Boise, ID 83702; 208/343-3454.

Async Modem

The Black Box 9600 Async Turbo Modem from Black Box Corp. is a 9600-baud modem.

The unit uses the IBM PC-AT command set and sends and receives at 9600 baud after error control. (Many 9600-baud modems deliver at 1200 baud after error control.) The retail price is $1,099 for the stand-alone model and $1,079 for the half-card unit.

For information, contact Black Box Corp., P.O. Box 12800, Pittsburgh, PA 15241; 412/746-5500.

Go Online for More Product Announcements

The following new product announcements are available this month in *Online Today Daily Edition* by typing GO OLT-250 at any CompuServe Information Service prompt.

bATpac, *lifetime rechargeable backup battery for the IBM PC-AT and compatible computers, Compu-Tech Products.*

ReadySetShow, *professional desktop presentation software for the Apple Macintosh, Manhattan Graphics Corp.*

Rapid Relay, *file transfer kit for the IBM PC and compatible computers, Systems Management Associates.*

Dollars & Sense (version 4.0), *financial management software for the Apple Macintosh, Monogram Software.*

ReadRight, *optical character recognition software, OCR Systems Inc.*

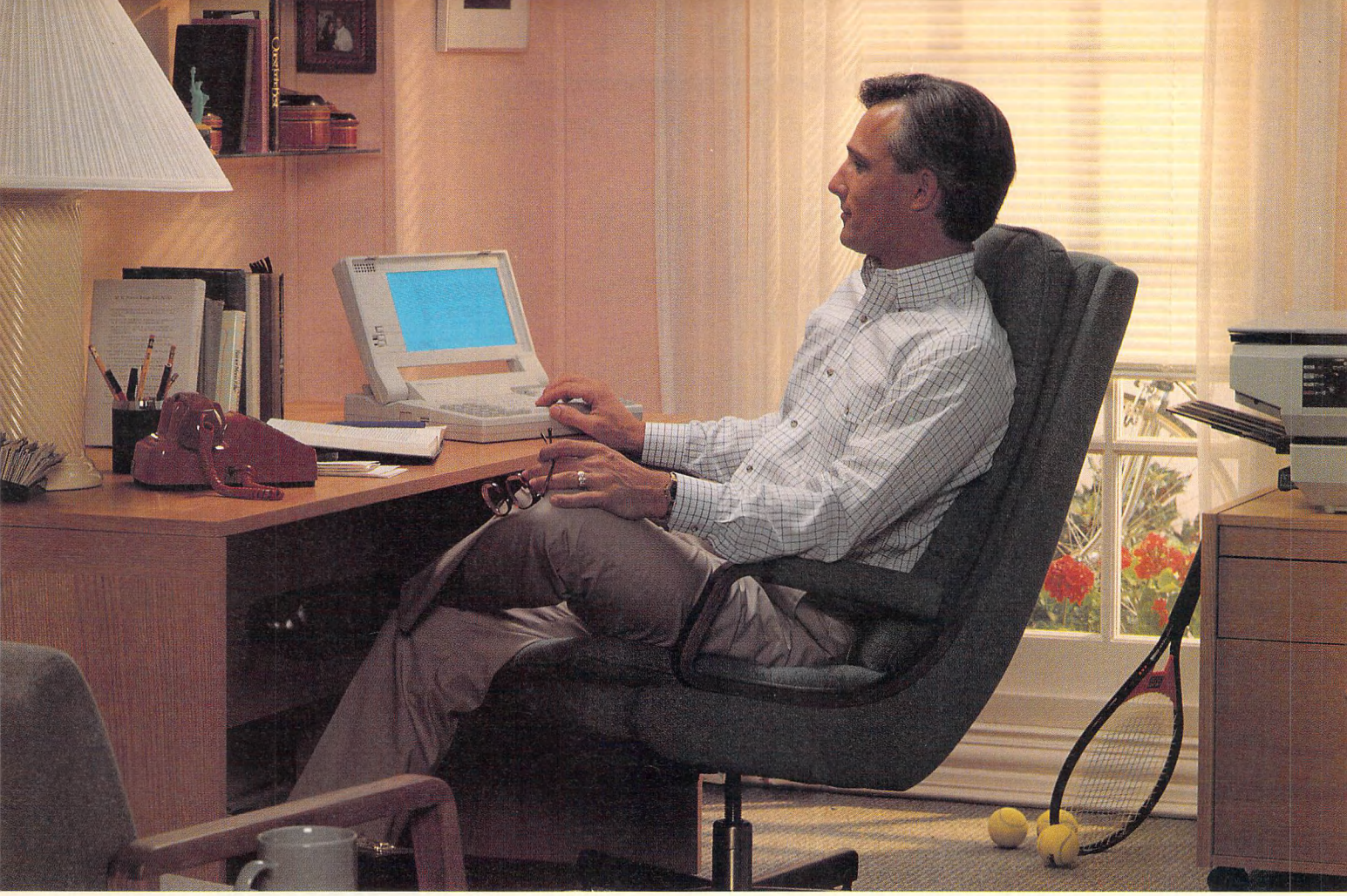
Laser Fonts 3.0, *a new package that brings desktop publishing to WordPerfect and Microsoft Word users, SoftCraft Inc.*

Curve Digitizer (version 3.0), *computer-aided design program for the IBM PC, PC-XT, PC-AT and compatible computers, West Coast Consultants.*

Turbo Prolog (version 2.0), *enhanced version of Fifth Generation computer language complete with external database support, Borland International.*

Viking 1, *monitor for the Macintosh II computer, Moniterm Corp.*

Data Guardian, *advanced data protection system, SoftLogic Solutions Inc.*



EAASY SABRE puts travel technology in its proper place. Your place.

Technology has revolutionized the way people travel. And now, the revolution is coming to your place.

Say hello to EAASY SABRE — your personal link to the American Airlines SABRE reservation system. For years, the travel industry has relied on SABRE to make transactions easier. Now you can have that power, too.

EAASY SABRE is the most convenient way to book and confirm your reservations. Only EAASY SABRE gives you access to more than 630 airlines, 16,000 hotels, 36 car rental companies and more. And, with EAASY SABRE's pre-reserved seats, hotel and car confirmations, and profiles for storing your personal preferences, making reservations is easier than ever.

The Bargain Finder℠ feature sorts through over 35 million fares to find the lowest possible one for you. You can make your reservations on-line and then pick up your tickets at any travel agency, American Airlines City Ticket Office or airport ticket counter. You can even get them through the mail.

EAASY SABRE automatically sends your frequent traveler information to the airlines, hotels and car rental companies, so all your accounts are updated for you. You can also use EAASY SABRE to check your current AAdvantage® mileage balance anytime you like.

EAASY SABRE lets you do all these things from any PC that has a modem that connects to an ordinary telephone line. A communicating terminal will also do fine. The only other thing you need is a subscription to one of the major data networks.

So start making travel plans your way. At your convenience, 24 hours a day. Let EAASY SABRE put travel technology in its proper place. Your place.

EAASY SABRE℠

The power to move people.™

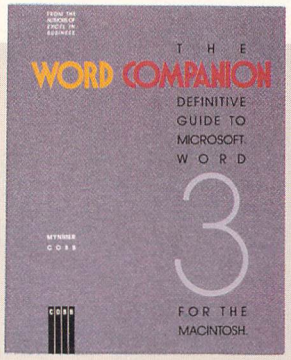
AmericanAirlines

EAASY SABRE is a product of the SABRE Travel Information Network℠. AAdvantage® is a registered service mark of American Airlines, Inc.

GO OLI or circle 22 on the Reader Service Form.

Online Book Reviews

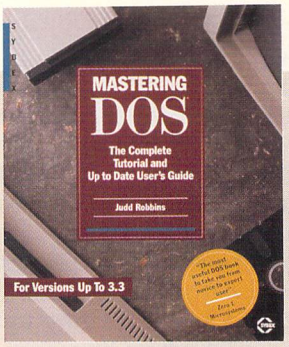
Following are summaries of book reviews available for reading this month in *Online Today Daily Edition*. To read the complete reviews, type GO OLT-240 at any CompuServe Information Service prompt.



Word Companion: The Definitive Guide to Microsoft Word 3 for the Macintosh

By Judy Mynhier and Gena B. Cobb
The Cobb Group, 1987
692 pages, $19.95 (softcover)

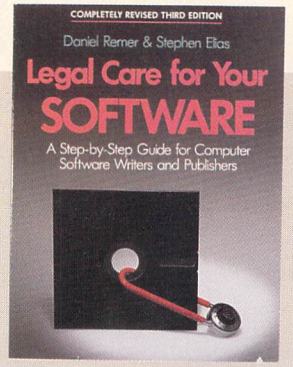
This comprehensive guide, which covers every aspect of Microsoft Word, is organized by different word processing functions. Reviewer Christine Graves finds a few faults with the book, but generally gives it high marks. *GO 5540*



Mastering DOS: The Complete Tutorial and Up to Date User's Guide

By Judd Robbins
Sybex, 1987
572 pages, $19.95 (softcover)

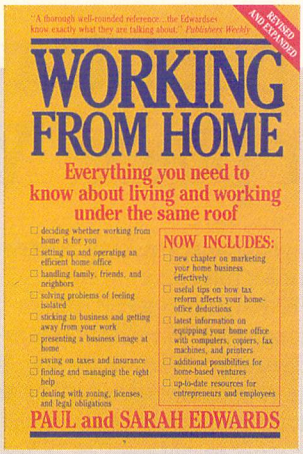
This book, which focuses on common microcomputer activities, shows readers how to perform essential operations with DOS. Reviewer Darrow Kirkpatrick says anyone who uses DOS regularly will benefit from it. *GO 5530*



Legal Care for Your Software

By Daniel Remer and Stephen Elias
Nolo Press, 1987 (third edition)
352 pages, $29.95 (softcover)

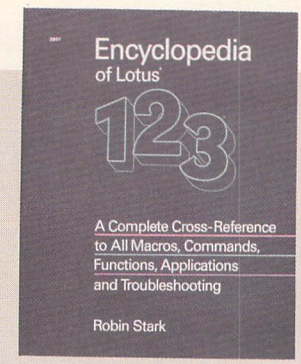
If you write or publish software, reviewer Sharon Weizenbaum (herself an attorney) says you will find this book to be an excellent educational tool. In addition to covering the basics of software protection and contracts, this revised edition reflects a number of important legal developments. *GO 5500*



Working from Home: Everything You Need to Know About Living and Working Under the Same Roof

By Paul and Sarah Edwards
Jeremy P. Tarcher, 1987
(revised edition)
436 pages, $12.95 (softcover)

Calling this the "bible" for the work-from-home crowd, reviewer Cathryn Conroy says this revised edition features new information, including marketing and tax tips, in addition to the solid advice that made the original version so good. *GO 5510*



Encyclopedia of Lotus 1- 2-3

By Robin Stark
TAB Books, 1987
484 pages, $19.95 (softcover)

This book is a complete cross-reference to all macros, commands, functions, applications and troubleshooting for Lotus 1-2-3. Reviewer Robert Sanchez calls it a comprehensive and highly useful guide, particularly for users of version 2.0. *GO 5520*

Looking for a Book Reviewed in *Online Today*?

For publishing information on the books reviewed in *Online Today Daily Edition*, type GO OLT-240 at any CompuServe Information Service prompt and read this month's reviews from the main menu. Then select Option 6, "Publishers' Addresses," for information to order the books reviewed.

ONLINE TODAY

It's a matter of life and breath.®

AMERICAN LUNG ASSOCIATION®
The Christmas Seal People®

Space contributed by the publisher as a public service.

Guidelines to Requesting Information Through OLI

Online Inquiry

Online Inquiry is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and type GO OLI at any prompt.

CompuServe Page OLI-1
ONLINE TODAY ADVERTISERS
ONLINE INQUIRY (OLI)

1. OLI Instructions
2. Online Today Display Ads
3. Print Edition Reviews
4. Shopper's Guide Mini-Ads

Display Ads

GO OLI-160. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at the prompts. OLI will add your User ID number and electronically forward your request to the appropriate advertiser(s). The names, addresses and User ID numbers will also be forwarded via US Mail at the end of each month.

CompuServe Page OLI-160
ONLINE TODAY ADVERTISERS/OLI

1. Aug. 1988 Advertisers
2. July 1988 Advertisers
3. June 1988 Advertisers

Editorial Articles/Reviews

At the end of each electronic version product review, you'll be asked if you wish to request further information through the Online Inquiry system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, GO OLI-280 and select the appropriate listing, such as August Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the OLI system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

CompuServe Page OLI-280
REVIEW LISTINGS/PRINT EDITION

1. Aug. Hardware Listings
2. Aug. Software Listings
3. Aug. New Product Listings

Shopper's Guide

GO OLI-70 to get information about *Online Today*'s mini-ad program.

To request information from Shopper's Guide advertisers, follow the instructions outlined in each ad.

CompuServe Page OLI-70
SHOPPER'S GUIDE

1. About Shopper's Guide
2. Rates and Information

***Note:** Additional requests during the same session will not require you to re-enter your name and address.

MARK YOUR CALENDAR!

for
AT&T'S LIVE CONFERENCE on
MEETING COMMUNICATIONS NEEDS THROUGH TELECONFERENCING
Monday, AUGUST 15th
8:00 PM EDT
with
Dr. Vernon T. Mikell
Teletraining &
PC Conferencing Expert

Find out about the quantum leaps teleconferencing has made in the past few years; tapping into the power of voice, image, graphics, text and data.

GO CONVENTION on the 15TH!

GO ATT for more details now.

©1988 AT&T

GO OLI or circle 18 on the Reader Service Form.

SHOPPER'S GUIDE

Turn Your PC/XT/AT Into Multi-User, On-Line System

INFOHOST®
Multi-user On-line System Software
(Reviewed by PC Week on 5/19/87)

You can now place a database of goods and services on-line using your own PC, so your customers can dial in over phone lines to access information, leave messages, and make purchases via modem. InfoHost, which can support as many as eight simultaneous modem interfaces, features a customizable relational database that can be adapted to the needs of your business.

A-Comm Electronics, Inc.
377 Route 17 South, Hasbrouck Hts., NJ 07604
201/288-7885; TLX: 4948376

Call Our Demo System
201/288-7792
(With Modem Settings 8/1/N)

If you're looking for the lowest air fares for your summer travel, try the

oag® ELECTRONIC EDITION®

GO OAG

INFO-MAT
A FREE WEEKLY ON-LINE MAGAZINE
On 180 BBSes nationwide
Computer, Software, Telecom news & more
Always at your fingertips

SYSOPS
to carry INFO-MAT on your BBS, call modem: 913-478-9239 voice: 913-478-3157

ad sales: 312-251-2541

50 + pages of news, columns, features, etc., Each Week!

INFO-MAT affiliate BBS list: Go Access (file FREEMGZ)

NEW Version 2 Plus LOTTO PICKER

Be A Lotto Millionaire!

NEW! Lotto Picker™ Plus v2.0 stores winning Lotto & Pick 3/4 numbers & uses probability analysis in order to select what might be your million $$ ticket. Guaranteed to work for all lotteries worldwide. Not copy-protected. For IBM, 64k Apple II, & C64/128 **$34.95** (+4.55 sh). 3.5" add $10. **GE RIDGE**, 170 B'dway, #201OL, NYC 10038. **Orders 1-800-634-5463 ext. 293.** Info 718-317-1961.

$$ WIN $$
with our
SPORTS
Handicapping
Software

THOROUGHBRED/HARNESS Handicapping - $52.95. GREYHOUND Handicapping - $52.95. Up to 13 entries analyzed: class, speed, times, odds, track, post, stretch, & finish positions. PRO FOOTBALL, BASEBALL, BASKETBALL Software - $52.95 each. Handicap races & games in minutes. For: Apple 2/Mac, Atari, IBM PC, COM 64/128, TRS-80. SOFTWARE EXCHANGE, Box 5382-OL, W. Bloomfield, MI 48033. Info/orders: 313/626-7208. VISA/MC. 1-800-527-9467.

!GO ROCK
"Get Satisfaction"
Make online friends who know how to have fun on
Rocknet™
Music News, Gossip, Concert Listings, Trivia, Reviews, Download Music & More!
Just !GO ROCK

YOURS ABSOLUTELY FREE !
Precise, Reliable Price Forecasts from
STOCK MARKET BBS
BBS# 408 - 733 - 9341 (8/1/N)
Your Key to Instant Mastery of Trading Profits on 5,500+ NYSE, AMEX & OTC(NMS) Stocks
• P.O.B. 60842 • Sunnyvale, CA 94088 • (408) 720-8002

Direct From Our Roaster To You
C•O•F•F•E•E EMPORIUM
Purveyors of Gourmet Coffees & Teas
GO COF
- We offer the World's Rarest Coffee—Jamaican Blue Mountain
- Orders shipped within 48 hours

What price breathing?

AMERICAN LUNG ASSOCIATION®
The Christmas Seal People®

It's a matter of life and breath.®

Space contributed by the publisher as a public service.

ALL ORDERS SHIP IN ONE BUSINESS DAY! (even 3.5" disks)

SAVE MONEY. GET QUALITY.
Diskettes
$1.19 ea. 3.5" $.29 ea. 5.25"

100% Certified above American National Standards Institute (ANSI) spec's for quality and value.
Price includes Sleeves, Labels & WP Tabs.
Money Back Guarantee.

3.5" DS 135TPI
$1.19 ea. Qty 100
1.29 ea. Qty 75, 50
1.39 ea. Qty 25

5.25" DS DD Soft Sectored
$.29 ea Qty 100
Tyvek Sleeve, add 4¢
Prices subject to change

Free Delivery for $100+ orders. $3.50 Others. MC, V or MO Accepted. Ohio residents add 5.5% sales tax.

See us on the Electronic Mall "GO DM"
1-800-288-2887
9 AM–7 PM Mon–Fri EST

DIRECT MICRO
1776 Dividend Drive
Columbus, OH 43228-9967
1-614-771-8771
FAX 1-614-771-8772

GO OLI or circle 19 on the Reader Service Form.

INFORMATION

The advertisers and manufacturers of the products appearing in Online Today *will be pleased to send additional information about their products or services—at no cost to you. Make your selection by circling the advertiser or product by number on the form below. Fill in the requested information and mail to:* Online Today, *Reader Service Management Dept., P.O. Box 376, Dalton, MA 01227-0376.* Online Today *will see that your requests are forwarded promptly. You may get a faster response by using the Online Inquiry service system. Simply enter GO OLI at any prompt on the CompuServe system and follow the OLI prompts. Your request will be forwarded.*

Inquiry Number	Advertiser/Product	Page Number
	ABC DataKap Computer Inc.	42
14	Access Technology	38
	A-Comm Electronics, Inc.	46
22	American Airlines	43
18	AT&T	45
	BBS Press	46
	Black Box Corp.	42
	Coffee Emporium	46
16	Computer Aided Management	40
7	Computer Sports World	21
19	Direct Micro	46
	Fundamentals Co.	42
	Gered Corp.	42
	GE Ridge	46
6	Grolier	11
1	Hayes	Cover 2
15	IMSI	39
11	Max Ule	35
2	McGraw-Hill	1
4	National E-Mail Registry	5
21	Official Airline Guides	Cover 4
9	Okidata	34
10	Okidata	35
13	On-line Store	37
17	PaperChase	41
	Productivity Performance Inc.	42
3	Quick & Reilly Inc.	3
	RockNet	46
20	Shoppers Advantage	Cover 3
	Software Exchange	46
	Stockmarket	46
12	Xerox	36

READER INQUIRY

For free information on products or services in this issue of *Online Today*, fill in your name, address, ZIP code and phone number. Then circle the number that corresponds to the number of the advertisement or article in which you are interested.

CompuServe subscribers can request information electronically by entering GO OLI at any prompt.

(Please print or type)

Name _____

Company Name _____

Address _____

City _____

State _____ ZIP _____ Business Phone _____

Mail to: Online Today, Reader Service Management Dept., P.O. Box 376, Dalton, MA 01227-0376.

Circle inquiry number from this issue only

1	21	41	61	81
2	22	42	62	82
3	23	43	63	83
4	24	44	64	84
5	25	45	65	85
6	26	46	66	86
7	27	47	67	87
8	28	48	68	88
9	29	49	69	89
10	30	50	70	90
11	31	51	71	91
12	32	52	72	92
13	33	53	73	93
14	34	54	74	94
15	35	55	75	95
16	36	56	76	96
17	37	57	77	97
18	38	58	78	98
19	39	59	79	99
20	40	60	80	100

August issue, not valid after November 1988.

UPDATE

Change Terminal Settings Easily

CompuServe's Terminal Settings/Service Options software, formerly DEFALT, has new features to ease online navigation. Members can use menu options to specify settings for a session, view permanent settings and customize the computer's online display editor, forum presentation mode and protocol/graphics support. Help information and instructions are also available. GO TERMINAL

New Merchants in The Electronic Mall®

Halvorson Research Associates (GO HRA) publishes its Sample Monthly Listing of stocks and HRA Sell/Buy Educator, a disk for IBM-compatible computers. Subscribers receive a monthly letter on trends in the economy and current investment strategy.

Penguin Books By Mail (GO PB) offers more than 15,000 books, including 200 new bestsellers, business books, suspense and adventure, gift books and limited editions each month. Penguin Books By Mail offers free print catalogs and an introductory book.

The Electronic Mall's Coffee Emporium (GO COF) introduces The Fog Bank, a store within a store. The Fog Bank's gifts include California Gold Rush sourdough bread mix, Napa Valley mustard and catsup, and almond and pistachio gift boxes. Coffee Emporium has gourmet coffees and 48-hour shipping.

Travelshopper Adds Features

Travelshopper offers airline seat selection and hotel reservation capabilities online. Members will be provided with a confirmation number when making an online hotel reservation. The system will automatically request a seat preference when you indicate "reservation is accurate." GO PARS

Election '88 Offers Online Opinion Poll

Every two weeks, you can express your views on a new CompuServe Opinion Poll topic in the Election '88 database. The results of earlier questions are also available. To participate in the Opinion Poll, type GO USA at any CompuServe Information Service prompt and select Option 4, CompuServe Election Poll. Then select Option 2, This Week's Question.

Cupcake Celebrates Fifth Anniversary

Cupcake, Terry Biener, is celebrating her fifth year as the roving CB Society reporter. This summer, CBers are planning brunches, weddings and parties from coast-to-coast, and Cupcake covers it all in her bi-weekly column. Find out who's who and what's happening on the CB Simulator. GO CUP

CompuServe Exhibit at MacWorld Expo

CompuServe will demonstrate Navigator 3.0, MAUG and other new technology advances at the MacWorld Expo in Boston, Aug. 10-13. CompuServe Navigator, new versions of the Users Guide and the CompuServe Almanac will be available for exhibit sale prices.

Amiga Forum Reorganized

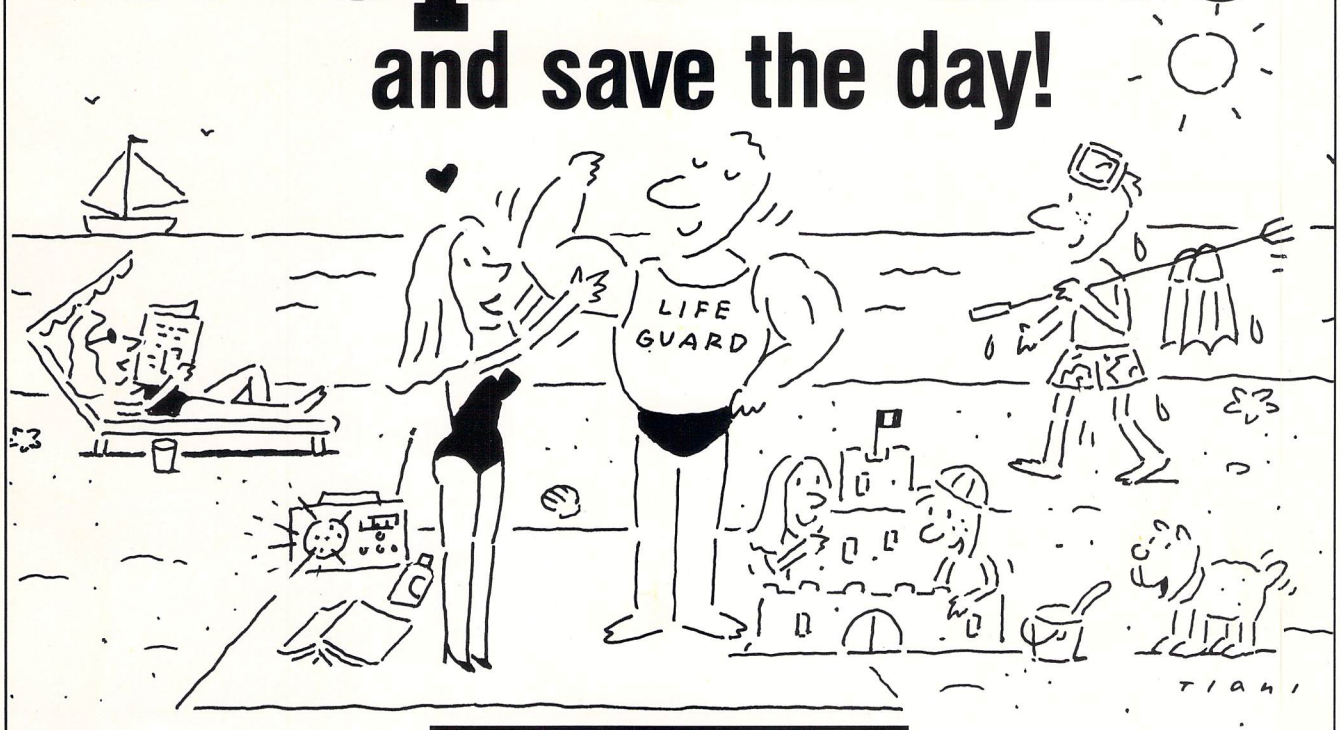
The Amiga Forum has reorganized into the Amiga Arts Forum, the Amiga Tech Forum and the Amiga Vendors' Forum.

The creative aspects of the Amiga Personal Computer are covered in the Amiga Arts Forum (GO AMIGAARTS) and the Amiga's technical aspects are featured in the Amiga Tech Forum (GO AMIGATECH). The Amiga Vendors' Forum (GO AMIGAVEN) provides support and information for Amiga-related products. Participating vendors include Impulse Inc., Syndesis, Soft Circuits, Transactor Magazine, C Ltd., Avant-Garde Software Inc., MicroIllusions, A SDG Inc. and MicroSmith. GO AMIGA

Borland To Host Forums Party

Borland forum members are invited to attend the Fourth Annual Borland Forums party on Saturday, August 6, in Scotts Valley, Calif. Philippe Kahn, president of Borland International, will host the party, including the first Turbo 10K Run, a picnic and a tour of the new Borland corporate office. Borland will show new and soon-to-be-released products. For more information contact Gail Meisner at EasyPlex User ID number 76703,4162.

Shop On-line
and save the day!



SPECIAL INTRODUCTORY OFFER FOR COMPUSERVE SUBSCRIBERS!

3 MONTHS FOR $1

You've got better things to do with your precious summer days than spend them in stuffy, crowded department stores searching for bargains—especially when you don't have to. With Shoppers Advantage you can bargain shop from your PC whenever it's convenient for you, rain or shine.

And, not only will you have more time to work on your tan, you'll be able to save up to 50% off manufacturers' list prices on over 250,000 name-brand products. When you see how much you can save, you'll agree Shoppers Advantage gives you a better way to spend your summer and your money!

- **User-friendly convenience.** We're open 24 hours a day, 7 days a week. Browse on-line, order on-line, and have your purchases delivered to your door. Simple menus and step-by-step instructions make it easy.
- **Tremendous selection.** Without leaving the comfort of your home or office, compare makes and models, compare name-brands—best of all, compare prices!
- **Lowest-price guarantee.** If you can find a lower price on an item you buy from us, we'll refund the difference.*
- **Double warranties.** You can double the manufacturers' warranty up to one year at no additional cost.*
- **Free catalogs.** We'll keep you informed about our latest "Best Buys" and exciting additions to our database of fine products!
- **Enroll today.** Sign on to CompuServe and enter **GO SAC** to have full membership privileges for 3 months for just $1. Then, unless you notify us, we will continue your membership and bill you for the low annual fee of $30. And, of course, you can cancel and receive a full refund at any time during the first year.

Shoppers Advantage™
ON THE ELECTRONIC MALL®

Enter GO SAC or Call 1-800-843-7777

© 1988, CUC International Inc.
Shoppers Advantage is a service of CUC International Inc.
The Electronic Mall is a service of CompuServe.
*Conditions of our Lowest-Price-Guarantee and Double Warranty Policy can be read on-line. B680T

Sample the world's premier, and most complete on-line shopping service!

Someday it will take you to the stars. Today it will take you almost anywhere on Earth.

Official Airline Guide ELECTRONIC EDITION.®

Here is your chance to take off on a travel planning experience that puts you at the controls. From start to finish.

Tapping into the ELECTRONIC EDITION takes you farther than you've ever gone before. Thousands of North American and international fares are linked together so you can easily find the lowest price for the time and date you request.

"**Look or Book.**" See if seats are available on a flight at the fare you want. Or, actually book your reservation day or night and arrange for convenient ticketing. Even view hotel and motel information around the world.

So, next time you're launching travel plans, tap into the OAG ELECTRONIC EDITION. And take off!

ON COMPUSERVE ENTER: GO OAG.

Official Airline Guides

a company of The Dun & Bradstreet Corporation

GO OLI or circle 21 on the Reader Service Form.